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- No. 7.—Table shewing the equivalent proportions of citric acid to the alkaline carbonates.
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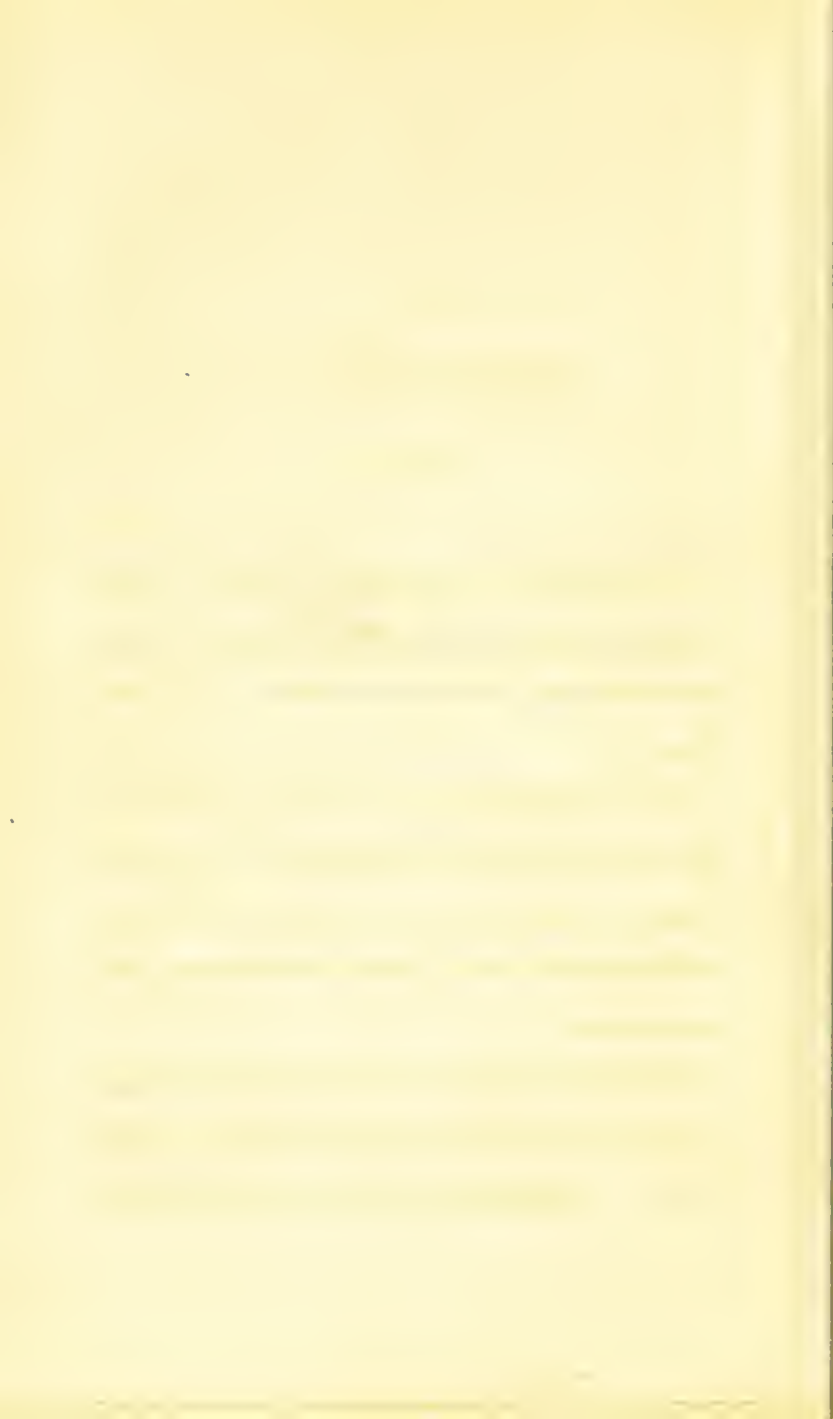
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Brompton, 1839.



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MAGNACOPIA.

EXTRACTION.

THE article, of which the essential or active property is required to be obtained, should be digested in a proper menstruum; first in an ordinary temperature, then macerate gradually to a moderate warmth, but never beyond 84° Fahrenheit; more particularly where the subject employed is very liable to be converted into carbonaceous matter. In watery extraction, it is very necessary that no greater quantity of water be employed

than is sufficient for the due performance of extraction, because the active principle is liable to be injured by protracted concentration. The terms digestion and maceration serve to imply modes of extraction: the former, when the process is to be performed without increased temperature; and the latter, implying with the aid of heat. Although heat wonderfully assists the power of promoting extraction, it, nevertheless, is exceedingly injurious to many very valuable substances in medical botany, occasioning the menstrual solvent to take up the impure and inert parts. This should be avoided, if possible. Water, at the ordinary temperature, abstracts the virtues of all vegetables but those of the aromatic species containing essential oils.

Warm watery infusions yield the peculiar flavour of vegetables of this kind, and which serve for the ordinary purposes of administration, as vehicles for the more active medicines. There are some few vegetables so extremely excited by the action of heat, as totally to

take upon themselves the most opposite characters. We find it instanced in the class of plants, characterised by their pungent, aerid, bitter principles, which, if infused in hot or moderately-heated water, give out a nauseous irritating taste, extremely offensive to the stomaeh, produeing much vomiting and debility ; whilst an infusion in cold water, of the same substance, yields a grateful, palatable, stomachic bitter, of the most agreeable kind. It is at all times much better to extract the virtues of vegetables by cold infusion, rather than by the assistance of heat ; for it so happens, that whatever excess of matter may be held in solution in an increased temperature, it is immediately deposited, by its relapsion, to the natural cold state. In very cold weather, water possesses very little power of extraction. It might then be proper to increase it to the ordinary heat of water in summer ; and at the end of the process, to the abstracted liquor, add a small quantity of spirit, to keep the temperature uniform. Tinctures which are made in

summer, in the ordinary mode, deposite a considerable quantity of active matter in winter; consequently, it is at all times necessary, for uniformity of strength, to add rather more spirit when preparing them than is usually employed. The temperature of a store-room or shop, where extractions of every kind are put, should be kept in an uniform degree of heat, or the solvent power of the menstruum is materially deteriorated.

FUSION.

SOME chemists have decided that fusion is simply a solution in caloric. As yet, we are taught to regard it as the reduction of solid bodies to the fluid state, by the action of fire. It is applicable principally to metals and metallic substances, for use in the natural arts; though a kind of fusion is recognised, as applicable to pharmacy. All resins, resinous substances, and turpentine, liquefy in a moderate heat: pitch, tar, wax, and sulphur, in a still greater heat; soda, potash, nitre, and common salt, require a red heat to melt them. If steel, when at an intense heat, be applied to a roll of sulphur, the sulphur will instantly melt or fuse the steel, and combine with it. Sulphur is the only substance, not metallic, capable of combining intimately with metals by fusion. Fusion can scarcely be said to be applicable to any substances but the metals and their compounds.

CALCINATION.

By calcination, hard solid bodies become reduced, by the action of fire, to a state of minute division, or impalpable powder, which qualifies them for the various offices for which oxides are employed. The residue remaining from ustion, is the calcined substance deprived of its original texture and character. Saline salts, in like manner, subjected to an intense heat, become calcined from the loss of their water of crystallization. Bones are calcined by incinerations. The uniting metals with other minerals, to render them for the purposes of pharmacy, is by reducing them to a state of oxydation by calcinable means. They melt at a strong heat; and in that state, by exposure to the action of atmospheric air, gradually become converted into oxides, which undulating upon the surface of the heated fluid, should, as often as generated, be collected, or the oxide reverts back to the metallic solid form, by

continued or increased heat. These oxides instantly combine with most divisible bodies. In a state of oxidation, metals possess very powerful properties upon the body, as well as various medicinal remedial virtues, but have no visible action in the metallic form. They are also applicable to various pharmaceutical uses, by their solution in acids, forming powerful compounds. Their principal application to pharmacy being in the state of oxidation, combining readily with many other substances. All combinations of metals with acids, are decomposed by the addition of alkaline earths or volatile salts, forming compounds with either of the latter; which compounds are again decomposed by the acid uniting, by excess of affinity, to the alkaline bases of soda, potash, lithia, &c.

EVAPORATION

Is a mechanical process, by means of heat, for dispelling the more fluid parts of liquids containing solid bodies. When any substance has been boiled in water, for the purposes of abstracting its virtues, the virtues so extracted require to be consolidated, and the solution to be placed in a large shallow vessel, for the purpose of driving off in vapour the watery part : thus the matter which was contained in solution is left behind, in form of a solid mass. The evaporating solutions of active substances, by the close contact of fire, not only render the product inert and useless, but contaminate it with a disagreeable empyreumatic smell. The remedial principle of the solutions of all those substances to which this process is applicable, must be less volatile than the menstrua employed, or the evaporating process is not the proper one to be here employed. It is observed, under the head of Crystallization, that all saline salts

and alkalies (volatile excepted) are recoverable from their solutions by evaporation. Evaporation differs from crystallization in this, the process is pushed on till the substance to be obtained is left behind in a solid mass. Those substances which are most proper to be treated in this way, are vegetables of the inodorous species, gums, gum-resins, vegetable juices, &c. For all resinous and odorous substances, the solvent must be spirit of wine ; but in all other cases, water. All evaporations should take place in water-baths, or by the action of the sun in summer, except the spirituous solutions, where it is requisite to collect back the spirit ; the most simple means of doing which, is by the common *retort* and *receiver*, in the least possible degree of increased temperature. Watery menstrea, containing solutions, require, during evaporation, particularly towards the end of the process, to be continually stirred, or the extractive matter is liable to a sort of burned empyreumatic smell, besides a concretionary pellicle forms on the surface, which

prevents the necessary vapourizing of the fluid. Of late years, steam has been introduced as the agent to be employed in all processes of this kind. It is to be hoped, that all those engaged in the various branches of the professions, will investigate the extractive vegetable thus prepared, for their own satisfaction. From the knowledge that steam is *more* corrosive than actual fire, it cannot for a moment be doubted, but that it is improvident for the purpose of evaporating vegetable matter, because the corrosion must be destructive to the medicinal virtues of plants.

PURIFICATION OF SALINE BODIES.

SALINE salts are usually met with in an impure state, containing a considerable quantity of earthy matter, and also a combination of different salts of different characters. The process of purification is by boiling the matter in question for a short time, then pouring the liquor into some wooden or earthen vessel in order that the dregs may subside, the supernatant liquor is then to be poured clear off, suffered to cool, and filtered. The filtered liquor must then be boiled again, and evaporated till the evaporation has so far proceeded that symptoms of concretion upon the surface appear, then remove the vessel from the fire into a moderately cool place, that crystalline shoots may form. When the process of purifying saline bodies is performed with skilful management, the various salts crystallize in transparent crystals peculiar to each particular salt: thus nitrate of potassium crystallizes in hexagonal

prisms, chloride of sodium in cubical, and hydrochlorate of ammonia in feathery fibrous strata. If different salts are found in solution in the same liquor, they are easily separated from each other during the purifying process of crystallization. The salt which is most difficult of solution will crystallize first, as it requires a larger quantity of water to keep the saline particles dissolved: thus, bitartrate of potash, nitrate of potassium, chloride of sodium, crystallize in different quantities of liquor. The former will first concrete, and should be collected and separated from the liquor containing the other salts. The nitrate will next crystallize, leaving the chloride of sodium still in solution. By continuing the evaporation further, the latter salt crystallizes, thus rendering the three species of salts quite distinct. If there is reason to suspect that either of the salts thus obtained be impregnated with any portion of one another, a re-solution should be made, and the purifying process very attentively carried on. The salts first shooting into crystals are sure

to be pure. It is only where the evaporation is carried on so far, that the salt next in succession of concretion has lost so much of the solvent liquid as to be incapable any longer of remaining quite dissolved.

PRECIPITATION.

PRECIPITATION is characterized by three species of operation. One of the processes is where the solution of any bodies are recoverable in a powdery form by the addition of some substance having a greater affinity for the solvent containing the dissolved bodies, in which case, the former is taken up, and the latter thrown down (precipitated). Another is, where the addition of some substance added to a menstruum containing a dissolved body unites therewith, and both are precipitated. The third is the precipitate *per se*, the red oxide of mercury

by heat. Sulphur combined with alkalis is precipitated by acids—the first named process. The precipitation of quicksilver from aqua fortis by muriatic acid forms the second process. The precipitate *per se*, or red oxide of mercury, is the combination of nitric acid and mercury exposed to a continued heat, by which they become partially decomposed; a portion of the nitric acid being got rid of, thereby rendering the red oxide of the shops, or the third process.

In the two first processes, the precipitating agent requires to be gradually employed so long as a precipitate continues to be thrown down. The resulting powder is then to be several times washed with fresh parcels of distilled water, and afterwards dried for use.

CRYSTALLIZATION.

WATER at the boiling point dissolves a much larger quantity of saline matter than it can retain when cold, and thus a part of the salt becomes spontaneously separated, which concretes at the sides and bottom of the vessel. When a solution of saline particles is diffused in a large mass of water, it will be necessary to evaporate it by boiling away so much of the fluid as to cause concretion to begin to take place. The fluid which before was more than enough to keep the saline substances in solution, becomes so far reduced as not to possess the power, when grown cold, of retaining the salt in solution, which in the increased temperature it had the power of doing. To make thin, clear, and bright crystals, care should be taken not to shake the vessel, or disturb the liquor when cooling, or the salt crystallizes in rough semi-transparent masses. It will still even be better, where the object of speedy crys-

tallization is not a consideration, not to proceed even so far as to suffer the hot liquor to show a disposition to generate crystals. The largest transparent, and most perfectly formed crystals, are obtained from the saline liquor before the disposition to coalesce has taken place; and great care must be used not too suddenly to remove the vessel into a colder region, for by so doing you generate rapid concretion, and the crystals irregularly run together, and disturb the order of crystallization throughout the whole batch. To perform the necessary minutiae, so as to please the eye, a portion of the saline liquor should be dropped from time to time upon different pieces of cold plate glass, in order to show at what time (if the liquor be suffered to cool) crystals would form. The crystals thus generated contain a much greater proportion of water crystallization than otherwise, and consequently are more beautiful and transparent than those which arise by an increased process of evaporation. Having ascertained the fact in the manner just stated, that crystals would

generate in the reduced temperature, proceed gently to remove the vessel from the fire, yet still retaining it in some heated place. It should then be covered over, so that the cold air should not suddenly rush upon it, and so produce a crop of contracted pellicle crystals. There is a class of salts called alkalines, which are not crystallizable from their solutions; their volatility exhaling before the menstrual fluid. Grew states, in his work on Crystallization, "Some of the neutral salts, particularly those of which certain metallic bodies are the bases, are so strongly retained by the aqueous fluid, as not to exhibit any appearance of crystallization, unless some other substance be added, with which the water has a greater affinity. Such a substance is spirit of wine, by the prudent addition of which these kind of salts separate freely from the menstruum, and form large and beautiful crystals, scarcely obtainable by any other means. The operator must be careful not to add too much of the spirit, lest instead of a gradual and regular crystallization, the basis of the salt be hastily

precipitated in a powdery form. One-twentieth part of the weight of the liquor will, in most cases, be sufficient, and in some too large a quantity."

Different salts require different quantities of water to keep them dissolved ; and hence, if a mixture of two or more be dissolved in one fluid, they will begin to separate and crystallize at different periods of the evaporation. Upon this foundation, salts are freed, not only from such impurities as water is not capable of dissolving and carrying through the pores of a filter, but likewise from admixtures of one another. Bi-salts are those which are crystallized, but with one atom of base to two atoms of acid, and which are capable of receiving another atom of the same base, or an equivalent of some other base. Sub-salts contain an excess of base.

DISTILLATION

Is the rarifying of fluids by the action of fire, by means of a still, into vapour, which is condensed when passing into a colder vessel through a condensing pipe, and thus becomes reconverted into aqueous substance, which is collected and preserved for the purposes of pharmacy. The simple mode of distillation is the elevation of the more subtile and volatile parts of liquids from the dregs: the more complicated act of distilling is the separation of liquids from solid substances; in this case the furnace must be kept at a white heat. To the first process of distillation belongs the rarification of spirituous liquors and aqueous solutions. Either of these liquids has the power of carrying with it, in the rarified state, the aroma or essential property of the vegetable employed. Boiling water has not the property of dissolving essential matter; it is only as a means of separating it from the grosser

particles. It is obvious, from most essential bodies possessing a less degree of gravity than the vehicle employed as the medium of extraetion, that in a rarified temperature they readily pass over with the subtile parts of the aqueous fluid. There are some, however, which have a heavier property, and yet are also volatilized in steam by the same simple process. Here the action of the fire requires only to be slightly increased to answer the desired end ; the rarifying principle possessing an augmented degree of specific gravity, carries with it just so much increase of power, as to be more than sufficient for the volatilization of the heavier essential properties.

Spirituos fluid not only imbibes the essential principle during the process of distillation, but retains it ever afterwards, and continues strongly impregnated with the peeuliar odour and flavour of the subject employed. In order to illustrate the point, that water cannot take up any of the oleaginous essential principle of plants, it is only necessary to observe, that although the oil rises in vapour

along with the rarified liquid, it immediately, upon condensation, becomes visibly separated from the water, and according to its specific gravity, either swims upon the surface of the water, or sinks to the bottom. The heavier kind of distillation, such as the drawing of mineral acids, animal oils, quicksilver, &c., is to be accomplished only by an augmented degree of temperature, and consequently as they are not so subtile as the vegetable substances, they possess a greater degree of specific gravity, and remain so short a time in a state of volatilization, as to be incapable of passing over in the ordinary process of the common still. The vessels made use of for generating and collecting these heavier matters are called *retorts* and *receivers*. From the weight of the different substances obtained by distillation in this process, they require no refrigeratory vessel, for they are almost as soon as generated condensed into the receiving vessel, from the circumstance of each vessel being laterally inclined. At times there is a quantity of

impure air generated in the distilling process, which, if not guarded against by insuring a complete condensation of all matters which may arise, may be productive of some considerable mischief, causing a breakage of the receiver, and a probable injury to those in the immediate neighbourhood. But such a circumstance is easily guarded against, by keeping wet clothes continually over the neck of the receiver, so long as the distillation continues.

SUBLIMATION

Is the art of dry distillation; and as all fluids are volatile by heat, and as such capable of being separated from fixed matters, so the rules applicable to distillation apply to the process of sublimation. The one is the distillation of fluids, and the other of solids. If the sublimed matter concretes, it is denominated a *sublimate*; if in a powdery form or in floeculi, *flowers*. The process of sublimation may be carried on even in common bottles, or glass vessels, placed in a sand-bath; but the apparatus usually employed is an alembic. If the matters to be sublimed are of the light volatile kind, they require a high-necked vessel, to which should be attached an inverted receiver. In the sublimation of solid bodies, the vial employed should be so placed as the upper part of it should retain such a portion of heat as would be sufficient to attach the sublimate, fuse it, and render it compact.

TABLE

OF

RELATIVE PROPORTIONS OF DIFFERENT ACIDS TO
SATURATE ALKALIS.

32 parts of	$\left\{ \begin{array}{l} \text{Sulphuric Acid....} \\ \text{Nitric ditto} \\ \text{Hydrochloride do.} \\ \text{Pyroligneous ditto} \\ \text{Distilled Vinegar..} \\ \text{Brown ditto} \end{array} \right\}$	will saturate	$\left\{ \begin{array}{l} 41\frac{1}{2} \\ 25\frac{1}{2} \\ 12\frac{1}{2} \\ 13 \\ 3 \\ 2 \end{array} \right\}$	parts of exsiccated Alkali.
-------------	---	---------------	---	-----------------------------

One ounce of fresh Lemon Juice, or $36\frac{1}{2}$ parts of Citric Acid.....	$\left\{ \begin{array}{l} \text{will} \\ \text{saturate} \end{array} \right\}$	One drachm of Carbonate of Soda.
---	--	----------------------------------

One ounce, $5\frac{1}{2}$ drachms of fresh Lemon Juice, or $53\frac{1}{2}$ grains of Citric Acid.....	$\left\{ \begin{array}{l} \text{will} \\ \text{saturate} \end{array} \right\}$	One drachm of Sesquicarbonate of Soda.
---	--	--

Two ounces and $\frac{1}{2}$ drachm of fresh Lemon Juice, or 65 grains of Citric Acid	$\left\{ \begin{array}{l} \text{will} \\ \text{saturate} \end{array} \right\}$	One drachm of Carbonate of Potash.
---	--	------------------------------------

One ounce and $4\frac{1}{2}$ drachms of fresh Lemon Juice, or $49\frac{1}{2}$ grains of Citric Acid.....	$\left\{ \begin{array}{l} \text{will} \\ \text{saturate} \end{array} \right\}$	One drachm of Bicarbonate of Potash.
--	--	--------------------------------------

One ounce and 4 drachms of fresh Lemon Juice, or 49 grains of Citric Acid	$\left\{ \begin{array}{l} \text{will} \\ \text{saturate} \end{array} \right\}$	One drachm of Sesquicarbonate of Ammonia.
---	--	---

Note.—Tartaric acid may be used as the saturating principle in lieu of citric acid, except with potash. Tartaric acid, with potash, forms a bitartrate, almost insoluble. When the latter acid is used, the Dublin Annals of Pharmacy recommend a minute quantity of mucilage to be added, for the purpose of retaining the carbonic acid.—This table will be of great assistance to the dispenser, as it shows at one view the different proportions of alkalis and acids to form neutral salts.

CONTINENTAL PREPARATIONS AND REMEDIAL AGENTS.

ALCOHOLIC EXTRACT OF NUX VOMICA.

Take rasped nux vomica, macerate it in alcohol at 40° in a gentle heat, then pour off the liquor and filter it, then add fresh alcohol to the residue till the spirit no longer takes up anything from it; add the liquors together, and draw off the spirit gently, till the extract is of a proper consistence.

DRY ALCOHOLIC EXTRACT OF NUX VOMICA.

Take a strong tincture of nux vomica, and evaporate to dryness. The extract should be kept in a dry place as it absorbs moisture. These extracts when made in pills should be rolled in gold leaf to preserve them from getting moist.

TINCTURE OF NUX VOMICA.

Take alcohol 36° one grain, dry extract of nux vomica four grains.

NUX VOMICA LINIMENT.

Tincture of nux vomica one ounce, strong tincture of ammonia two drachms. Mix.

PREPARATION OF STRYCHNINE.

Make a tincture of nux vomica and dilute it with water, add to it a solution of diacetate of lead gradually, till a precipitate ceases to be thrown down. The extraneous matter being thus separated, the strychnine remains in solution with some colouring matter, and sometimes an excess of acetate of lead. The lead is thrown down by passing a current of sulphurated hydrogen gas through it, then filter and boil it with some magnesia, which becomes attached to the acetic acid, yielding

a precipitate of strychnine and brucine. Wash this with cold water and dissolve again in alcohol to separate it from the magnesia, then evaporate, and the residue is a compound of strychnine, brucine, and colouring matter. Macerate these in a small quantity of weak alcohol, which takes up the brucine and colouring matter, and the strychnine remaining behind in a state of powder, which is to be taken in solution by boiling alcohol, evaporated and crystallized. Dose of strychnine from one-twelfth to one-eighth of a grain. Strychnine in pills should be silvered.

TINCTURE OF STRYCHNINE.

Take alcohol 36°, one ounce; strychnine, three grains. Mix. S. A.

Dose.—From six to twenty-four drops.

STRYCHNINE WITH IRON.

Take strychnine two grains; oxide of iron one dram; sugar and gum, of each one dram. Mix.

SALTS OF STRYCHNINE.

Strychnine combined with acids forms crystallizable salts mostly soluble. Therefore in preparing strychnine draughts, if lemon juice be employed, the effects of the substance becomes much more active. The carbonate of strychnine only is very sparingly soluble.

SULPHATE OF STRYCHNINE.

This salt is soluble in less than a tenth part of cold water, it crystallizes in transparent cakes if neutral, and in pellicles if hyperacidulated. Its taste is acrid, undergoes no change exposed to the atmosphere, treated at a temperature of 100° it does not lose any of its weight, but becomes opaque.

It melts at a greater heat, and if the heat be prolonging it changes again. Its composition is sulphuric acid 9·5, strychnine 90·5.

The hydrochlorate of strychnine is still more soluble than the sulphate, it crystallizes in pellicles, which magnified through a glass appear to be quadrangular prisms ; heated to the temperature which discomposes the base, it emits muriatic acid.

The neutral phosphate is only properly obtained by double decomposition. It crystallizes in four-sided prisms.

The nitrate of strychnine is obtained by dissolving it in strong nitric acid, evaporating and crystallizing it in crystals like mother-o'-pearl. Is much more soluble in warm than cold water, and is much more violent in its action than strychnine.

Acetic, oxalic, and tartaric acids in conjunction with strychnine, form salts which are very soluble, and easy to be crystallized, particularly if the acid be in excess. The neutral acetate is exceedingly easy of solution, yet not easily crystallized. With this

base, hydrocyanic acid forms a crystallizable salt.

The carbonate is obtained in form of white flakes and but sparingly soluble.

HYDRIODATE OF STRYCHNINE.

This salt is obtained with the greatest facility by mixing together a solution of iodide of potassium, and a concentrated solution of acetate of strychnine. A white precipitate immediately falls down, slightly soluble in water, but quite so in spirit, producing pure hydriodate of strychnine.

PREPARATION OF BRUCINE.

Make a tincture of *spurions augustura* bark, as directed for strychnine, and treat it with magnesia to precipitate the brucine, which must be washed much more sparingly than strychnine, it being so much more soluble in water. By evaporating the alcoholic

liquors which have been used for the magnesian precipitate, brucine is obtained in a resinous form, not being pure enough to crystallize. To purify it, it must be treated with oxalic acid, and mixed with some alcohol at 40°, and also with æther at 60°. By this process the colouring matter dissolves, and the oxalate of brucine remains in a white powder ; decompose this oxalate by magnesia, which leaves the brucine to be taken up again by alcohol. Evaporate this solution in the open air that crystals of brucine may form, for if by heat the brucine melts, yet equally pure. Brucine may very easily be obtained, by boiling the bark of the spurious *augustura* in acidulated water, decomposing the liquors with a small quantity of slaked lime, and pouring alcohol on the calcareous precipitate. This liquor should afterwards be distilled, and the residue will contain the brucine, which easily combines with sulphuric and hydro-chloric acids, forming crystallizable compounds.

SULPHATE OF BRUCINE.

This salt crystallizes in long pellicles, resembling four-sided prisms, terminating in extremely fine pyramids. It is very soluble in water and spirit, and of a very bitter taste. It is decomposed by potash, soda, ammonia, barytes, strontia, lime, magnesia, morphine, and strychnine. The hyper-sulphate crystallizes with much greater facility than the neutral sulphate. It is composed of sulphuric acid 8·84, brucine 91·16.

HYDROCHLORATE OF BRUCINE.

This salt crystallizes in four-sided prisms, terminating in an oblique surface; is not acted upon by the air; is very soluble in water. Sulphuric acid decomposes it, and nitric acid changes and destroys it. It contains acid 13·06, brucine 100·00.

PHOSPHATE OF BRUCINE

Crystallizes also; is very soluble, and slightly efflorescent. The acetate, tartrate, and oxalate crystallize likewise. The nitrate is in appearance like gum. The sulphate and muriate of brucine, being more soluble than the base, may perhaps be more active, and may be substituted in lieu thereof.

SOLUTION OF ACETATE OF MORPHIA.

Acetate of morphia, sixteen grains; distilled water, one ounce.

SOLUTION OF SULPHATE OF MORPHIA.

Sulphate of morphia, sixteen grains; distilled water, one ounce.

SOLUTION OF CITRATE OF MORPHIA.

Morphia, sixteen grains ; crystallized citric acid, eight grains. Dissolve the whole in one ounce distilled water, and colour with cochineal.

DOUBLE MURIATE OF MORPHIA AND CODEINE.

(*Gregory's Salt.*)

Take a strong solution of opium, and add to it a strong solution of muriate of lime, which decomposes the solution of opium, yielding a precipitate of meconate of lime, leaving a solution of the double salt of morphia and codeine. Pour off this solution, and filter on animal charcoal to purify it, so as to form pellucid crystals.

EMETINE.

M. M. Pelletier and Majendie have established, that ipecacuanha owed its vomitive virtues to an innate principle, which the former has named emetine. This principle is much more active than ipecacuanha itself, and neither possesses its disagreeable taste nor smell.

PREPARATION OF COLOURED EMETINE.

Take powdered ipecacuan and macerate it in æther at 60°; to dissolve the odorous fatty matter, pour off the æthèral tincture and treat with alcohol in the same way; add these tinctures together, and place them in water bath. Dissolve the residue in cold water, which will give out a portion of wax, retaining a small quantity of fatty matter; it now only remains to macerate it on carbonate of magnesia, re-dissolve it by alcohol, and reduce it to dryness. This preparation is not exactly pure emetine, although a useful medicine. Thus prepared, it is in the

form of shells of a reddish brown colour, almost without smell, has a bitter taste, though not nauseous, undergoes no change at 212° , is very deliquescent, soluble in water, but not crystallizable. Emetine is applicable in lieu of ipecacuanha.

VOMITIVE EMETINE MIXTURE.

Dissolve four grains of emetine in any vehicle, and give the solution in frequent repeated doses. If so soluble a medicine was given in one dose, it would cause extreme excitement, and would be expelled too quickly from the stomach without any good effect.

PECTORAL EMETINE LOZENGES.

Sugar, four ounces; emetine, thirty-two grains: for lozenges of nine grains each. Useful in catarrh, chronic pulmonary complaints, hooping cough, &c.

EMETIC EMETINE LOZENGES.

Sugar, two ounces; emetine, thirty-two grains: make lozenges eighteen grains each. One of these lozenges is generally sufficient for children, and three or four for adults.

PREPARATION OF CINCHONINE.

Make a strong alcoholic tincture of lance-leaved cinchona bark. Distil it to dryness in a water-bath. Dissolve the alcoholic extract in boiling water, strongly acidulated with hydrochloric acid. Add calcined magnesia, in a large proportion, to abstract the red colouring matter, which leaves the liquor clear by standing a short time. Boil it a few minutes, and suffer it to cool. Throw the magnesian precipitate on a filter, and wash it with cold water; dry it on a stove, and treat it by degrees with boiling alcohol, in order to rob it of its excessive bitter; pour the liquors together, and the cinchonine crystallizes in cooling.

ACETATE OF QUININE

Is remarkable for crystallizing with great facility in thick pellicles ; is very little soluble in a cold temperature.

CITRATE OF QUININE.

Citric acid, in an increased temperature, soon dissolves quinine, forming a transparent solution, which thickens on cooling. This salt approaches nearer to the sulphate in form than the other salts of quinine. It is capable of sustaining an excess of acid, which tends to increase its usefulness in cases where practitioners are desirous of combining the action of a tonic with an antiseptic.

SYRUP OF QUININE.

Simple syrup, two pounds ; sulphate of quinine, sixty-four grains.

QUININE WINE.

Good Madeira wine, one pound ; sulphate of quinine, twelve grains.

TINCTURE OF QUININE.

Sulphate of quinine, six grains ; alcohol, 34°, one ounce.

Sulphate of quinine is preferable to pure quinine for this tincture, because the tincture made with an alkali, without an acid, would precipitate by adding water.

CINCHONINE WINE.

Madeira wine, two pints ; sulphate of cinchonine, twenty-four grains.

TINCTURE OF CINCHONINE.

Sulphate of cinchonine, twelve grains; alcohol at 34°, one ounce.

CHEMICAL PROPERTIES OF
VERATRINE.

Veratrine is very soluble in cold water. Boiling water dissolves a millionth part of its weight, and it acquires an excessive tartness. Is very soluble in æther, and still more so in alcohol. It is insoluble in alcalies, and soluble in all vegetable acids. It saturates all acids, and forms with them uncrystallizable salts; and which, by evaporation, assume the appearance of gum. The sulphate alone takes upon itself the appearance of crystallization, when acidulated to excess. Nitric acid combines with veratrine; but when added to excess, especially when concentrated, it does not produce the red colour which takes place with morphia, brucine, and impure strychnine; but it quickly changes the vegetable

substance in its elements, and gives place to the formation of a yellow detonating matter, analogous to the bitter of Welther. Veratrine changes the paper of turnsol, reddened by acids, to blue. Exposed to the action of heat, it liquefies at a temperature of $50^{\circ} + 0$, in which state it has a waxy appearance. On cooling, it forms an amber mass, of a translucent appearance. Distilled over a fire, it swells up, is decomposed, and produces water, a great deal of oil, &c. It leaves a large bulk of charcoal, which, incinerated, leaves but a small residue of a slightly-alcaline taste. Veratrine, according to analysis, is composed of

Carbon	65.65
Azote	5.04
Hydrogen	8.54
Oxygen	19.60
	<hr/>
	99.93

TINCTURE OF VERATRINE.

Veratrine, four grains ; alcohol, one ounce.

SOLUTION OF VERATRINE.

Sulphate of veratrine, one grain ; distilled water, one ounce.

POMADE OF VERATRINE.

Veratrine, four grains ; lard, one ounce.

MODE OF PREPARING CYANURET OF POTASSIUM.

The process directed by M. Robiquet, is to expose ferruginous prussiate of potash, in a stone retort, to a long sustained heat, taking care to cover the issue during the time it is cooling. The cyanuret of iron is then completely decomposed, and that of potassium

remains untouched. The residue of this strong calcination constitutes a solid blackish mass, which is no other than the cyanuret of potassium, soiled by the iron and charcoal which compose the cyanuret of iron. This mass thrown into water, deposits the iron and charcoal, whilst the cyanuret of potassium is dissolved, and transformed into hydrocyanate of potash. When the operation has been well conducted, the solution is perfectly colourless, and retains no portion of iron. The cyanuret of potassium, properly prepared, is very pure, white, and transparent, capable of being melted over a fire without changing; nevertheless, the action of air, and particularly carbonic acid, decompose it in part. It preserves itself indefinitely, provided it is not in a damp atmosphere.

MANNER OF USING CYANURET OF POTASSIUM AND HYDROCYANATE OF POTASH.

The eyanuret of potassium is to be dissolved in eight times its weight of distilled water; it is then transformed into hydrocyanate of potash. The eyanuret, thus mixed with water, might be termed medicinal hydrocyanate of potash. This solution should only be made extemporaneously, because it is very decomposable in carbonate of ammonia. The hydrocyanate is given in the same doses as prussic acid.

CYANURET OF ZINC.

To prepare this substance, M. Robiquet preeipitated sulphate of zinc by hydrocyanate of potash, and formed a triple hydrocyanate of zine. This, well dried and calcined to a dark red colour, soon became converted into cyanuret of zinc, mixed with a small portion of eyanuret of potassium. In the works of M. Berzelius, on triple prussiates, he does

not admit such hypothesis, for he says it is only alcaligneous metals which do not lose their cyanogene by calcination. All the others decompose, and often produce *quadri* or *bi*-carburets of metals primitively cyanured. M. Henry, junior, prepares cyanuret of zinc thus in a pure state:—Take a solution of sulphate of zinc, and pour in gradually a recently prepared and filtered solution of carbonous cyanuret of potassium, until a precipitate ceases to be thrown down. The deposite (cyanuret of zinc) is then to be carefully washed and dried. If the solution of cyanuret of potassium be alkaline, it must be saturated with acetic acid.

CYANURET OF IODINE.

This composition of iodine, azote, and carbon, was discovered by Lerullas when repeating some of the experiments of Davy and Faraday on the liquefaction of gas; he soon discovered that the combination of iodine with cyanogen would operate without the assistance of pressure.

PREPARATION OF CYANURET OF
IODINE.

To combine the acid and cyanogen, carefully and quickly triturate together in a glass mortar, two parts of cyanuret of mercury and one part of iodine each perfectly dry. Put these into a large necked phial, then gradually heat it till the cyanuret of mercury begins to decompose, to indicate which, erepitation takes place, and the disappearance of some violet vapours, as well as the commencement of condensation of white matter at the orifice of the phial. Then by means of pincers take it near to a large glass bell placed on a sheet of paper or square of glass, the bell is then to be raised on one side and the neck of the phial placed under in an inclined manner. In an instant white vapours arise in quick succession, which condense on the disk of the glass in the form of woolly flakes exceedingly light. When they have ceased to form, it is to be heated afresh to sublime it on the bell.

HYDROCYANIC ETHER.

This preparation very much resembles prussic acid without possessing its dangerous activity, on which account it is likely to be employed. Its chemical properties consist in its being colourless, of a alliaceous smell, very penetrating and disagreeable. Sp : gr : 0·78. It boils at about 82°, is very little soluble in water, wholly so in alcohol and sulphuric ether. When pure, it does not cloud solution of nitrate of silver. It is very inflammable, and burns with a blue flame; caustic potash changes it with the greatest difficulty, and then only when highly concentrated.

PREPARATION OF HYDROCYANIC ETHER.

Make a mixture of equal parts of sulphovinate of baryta and cyanuret of potassium, gradually heat it in a glass retort, to which are fixed a basin and tubulated matras. On distillation, a liquid is obtained, colourless or

slightly tinged with yellow, which separates in two distinct parts. The lightest consists principally of hydrocyanic ether, not quite pure, being mixed with water, alcohol, sulphuric ether, and hydrocyanic acid. To purify it, add to it five times its weight of water, then keep it at a temperature of from 50° to 60° , adding to it a small quantity more water, decant it, and let it stand in contact with hydrated chloride of lime and distil. Thus obtained it is pure. It is composed of carbon 64.23, hydrogen 8.96, azote 26.81. Its medicinal properties are similar to hydrocyanic acid.

PREPARATION OF IODINE.

Burn the different fucus which grow on the borders of the sea, wash the ashes, and concentrate the liquor, add to it an excess of concentrated sulphuric acid, boil it gradually in a retort to which a receiver is attached. The sulphuric acid takes from the base hydriodate and hydrogen of hydri-

odic acid, so that there results sulphate of potash, water, sulphurous acid, and iodine, which arises in violet vapours and passes into the receiver with a little acid, and is condensed in that state. To purify it, it must be washed, and mixed with a little water containing potash, and distilled afresh.

PREPARATIONS OF HYDRIODATES OF POTASH AND SODA, SIMPLE AND IODURATED.

By pouring a solution of soda or potash upon iodine in a metallic state, an iodate and an hydriodate are formed, which are separated from each other by means of alcohol, which only dissolves the latter of these salts. The pure hydriodate is obtained by evaporation. The iodate very highly calcined may be transformed into iodide. The hydriodates of soda and potash may likewise be obtained in the same manner as the other neutral hydriodates, by directly combining the acid with the oxide. These

hydriodates are very deliquescent, and consequently very soluble in water. Again, their solutions are capable of dissolving iodine, and thus forming an iodurated-hydriodate. Another form of preparation is by one part of iodine, three or four parts of water put into a phial, and half a part of iron filings added by degrees and at intervals. Combination immediately takes place, great heat arises, the iodine disappears, the liquid assuming a deep red colour. During this brisk reaction an iodurated-hydriodate is formed ; by slightly heating it, and shaking it momentarily whilst it is still warm, it is converted into a simple hydriodate of iron. The almost entire discolouration of the liquid is a proof that the action is terminated, but more certainly when white paper does not assume a red tint. The liquor should be filtered and diluted with water, and placed in a sand bath in a matras, at nearly the boiling temperature. The iron is then precipitated by carbonate or subcarbonate of potash. This part of the operation requires some attention, that too great an excess of potash

should not be added, which might be indeed separated by repeated crystallizations, or saturated with hydriodic acid. After having filtered, and well washed it to separate the ferruginous deposit, evaporate the filtered liquor. The salt may be crystallized by cooling or evaporation, in the latter way, the concentrated solution of hydriodate of potash is placed, not on a stove, because the salt would rise to the edges of the vessel and finish by sustaining all the liquid, but over a gentle fire, where the edges of the vessel being less heated than the bottom, might condensate a little of the vapour which arises, and thus prevent the ascension of the salt. By degrees, the crystals form, occupying the space of the liquid ; they must be suffered to cool, and the liquor drained off and evaporated *de novo*. Finally, dry them on a stone, where they undergo a slight decrepitation. The hydriodate of potash usually crystallizes in eubes. The crystals are almost always opaque, and of a milky whiteness.

HYDRIODATE OF POTASH
(IODURATED).

Iodurated-hydriodates of potash and soda are combinations in fixed proportions, so that the solution of hydriodate of soda or potash which is known to be capable of dissolving iodine, can, whatever may be the circumstances, be combined with an equal quantity of iodine to that which it contains.

IODURATED SULPHURIC ETHER.

Sulphuric ether, one drachm ; iodine, six grains.

HYDRIODATE OF POTASH OINTMENT.

Take hydriodate of potash, one drachm ; lard, one ounce. Mixed.

IODURATED HYDRIODATE OINTMENTS.

Iodide of potassium, one hundred and sixty grains ; iodine, twenty-two grains ; lard, one thousand grains.

IODURATED SARSAPARILLA.

Decoction of sarza, two pounds ; iodide of potassium, one drachm ; syrup of orange peel, two ounces.

IODURATED COLLYRIUM.

Rose water, six ounces ; iodide of potassium, twenty-four grains ; iodine, one or two grains.

IODIDES OF IRON, LIME, BARIUM, AND ARSNIC.

IODIDE OF LIME.

Hydriodate of iron is precipitated by an excess of slacked lime evaporated to dryness, re-dissolved in water, filtered, and the liquor evaporated yields iodide of lime. This salt is white, very deliquescent, of a bitter acrid taste ; it is crystallizable.

IODIDE OF BARIUM.

Hydriodate of iron, heated with an excess of carbonate of baryta and evaporated to dryness, and again re-dissolved in water, produces the iodide by concentrating it in thick pellicles, very deliquescent, and of a disagreeable taste.

IODIDE OF BARIUM OINTMENT.

Iodide of barium, four grains ; lard, one ounce

PER-IODIDE OF IRON.

Take one part of iodine, and place it in contact with half a part of iron filings placed under water; on being heated, the iodine combines with the iron, and when the liquor becomes greenish, it should be filtered and evaporated to dryness, when it should be treated afresh with water, and after being filtered again the iodide is obtained by evaporation. It crystallizes with difficulty, is very deliquescent, styptic, &c.

IODIDE OF ARSNIC.

Heat in a glass retort sixteen parts of arsenic with one hundred parts of iodine. The iodide is sublimed in the form of a pellicle, of a red orange colour. It is readily decomposed by a large quantity of water.

IODIDE OF ARSNIC OINTMENT.

Iodide of arsenic, three grains ; lard, one ounce.

IODATE OF STRYCHNINE.

Take powdered strychnine and saturate it with a concentrated solution of iodic acid. At the moment it is mixed, the mass grows bulky, absorbs water, thickens, and gets very consistent, it is then to be dissolved in boiling alcohol, filtered, and left to a spontaneous evaporation. Thus is crystallized the strychnine iodate. Its chemical properties are, that it crystallizes white, in beautiful prismatic pellicles, little soluble in cold water, soluble in boiling water and alcohol ; thrown on burning charcoal it becomes crisp and disengages iodine. Heated in a tube it is decomposed with a slight detonation, depositing charcoal, and disengaging carbonic acid and iodine.

IODIDE OF MERCURY

Is administered in cases of syphilis, and the following is its mode of preparation :—

PROTO-IODIDE OF MERCURY.

Take one hundred parts of crystallized proto-nitrate of mercury dissolved in four hundred parts of water, and filter, to which add a solution of hydriodate of potash, and continue to add till a precipitate ceases to be thrown down. The yellow greenish precipitate thus obtained in a powdery state is then to be thrown on a filter, and washed with distilled water, till the water no longer precipitates a black deposit by the potash. It must be preserved in a close vessel sheltered from the light. This proto-iodide is yellow, insoluble in water, and very volatile. According to Thompson, one hundred and sixty-two parts of proto-iodide, contain sixty-two parts of iodine, and one hundred of mercury, or two hundred and fifty of mercury, and one hundred and fifty-six of iodine.

PREPARATION OF DEUTO-IODIDE OF
MERCURY.

Take dento-chloride of mercury (corrosive sublimate) seventy parts, and one hundred parts of hydriodate of potash. Dissolve each separately in a sufficient quantity of distilled water, filter the two liquors and unite them gradually, a red powder is immediately precipitated, which must be thrown on a filter and well-washed with distilled water till the water acquires no taste, then dry the precipitate and powder it, and put it into a phial protected from the light. The deuto-iodide is very soluble in hydriodate of potash and in mercurial salts, so that an excess of neither must be added. It is soluble both in acids and alcohol. It is very volatile, and contains two hundred and fifty parts of mercury and three hundred and twelve of iodine.

OINTMENT OF PROTO-IODIDE OF MERCURY.

Proto-iodide of mercury, twenty grains ;
lard, one ounce and a half. Mixed.

Used to cicatrise inveterate venereal ulcers.

OINTMENT OF DEUTO-IODIDE OF MERCURY.

Deuto-iodide, twenty grains ; lard, one
ounce and a half, mixed.

More active than the preceding.

TINCTURE OF DEUTO-IODIDE OF MERCURY.

Alcohol 36°, one ounce and a half ; deuto-
iodide, twenty grains. Mix. s. a.

Twenty-six drops is equal to one-eighth of
a grain in substance. The dose of this solu-
tion is ten, fifteen, or twenty drops at a time
in distilled water, common water decom-
posing it.

SULPHURIC ETHER, WITH DEUTO- IODIDE OF MERCURY.

Sulphuric ether, one ounce and a half; proto or deuto-iodide of mercury, twenty grains. Mix.

More active than the preceding.

IODIDE OF SULPHUR.

Take iodine, four parts; sublimed sulphur, one part. The mixture being made, put it into a medicine bottle, a little heated; the excess of iodine is separated, and the iodide compound remains in a greyish mass (pelled), very deliquescent, and easily decomposed by itself.

OINTMENT OF IODIDE OF SULPHUR.

Iodide of sulphur, five or eight parts; lard, ninety-six parts. Mix.

IODIDE OF ZINC

Is prepared either by carefully decomposing a solution of sulphate of zinc by a solution of iodide of barium, filtering and crystallizing, or evaporating it to dryness; or by heating in a matras a mixture of zinc (twenty parts) and iodine (170 parts), and subliming it in a phial.

Physical Properties. — Iodide of zinc is obtained in white pellicles, very deliquescent, and soluble in water—has a disagreeable and styptic taste.

OINTMENT OF IODIDE OF ZINC.

Iodide of zinc, one drachm; lard, one ounce. Mix.

For cancerous affections, tumours, &c. by rubbing.

PREPARATION OF BROMA.

Pass a current of chlorine through the mother-water of salts, and pour on the surface of it a layer of tincture of broma, made with sulphuric ether. Bromated ether, agitated with potash, gives a bromide, which collected, dried, and mixed with per-oxide of manganese, and treated by dilute sulphuric acid, gives, upon distillation (*rutilantes*), vapours, which, when condensed, are broma.

Physical and Chymical Properties.—It is a red-hyacinth liquid—by reflexion appears a blackish red; is very volatile, giving out (*rutilantes*) vapours; has a suffoeating smell, analogous to that of oxide of chlorine. It stains the skin yellow; is very heavy, even more so than sulphuric acid. Its specific gravity is 2.966; it is congealable in cold from eighteen to twenty degrees. It is not decomposable by heat or electricity, &c.

This body has a great analogy to chlorine and iodine, between which it takes its place. It is decomposed by the former, whilst it deprives iodine of its compounds.

It gives, with oxygen and hydrogen, two acids—the one bromic, and the other hydrobromic. The latter, combined with different salts, produces hydro-bromates or bromides.

PER-BROMIDE OF IRON.

Heat under water one part of brome, and one part of iron filings. When the liquor becomes greenish, filter it, and evaporate to dryness, then dissolve the reddish residue again in water, and evaporate again to produce perbromide. This salt is of a red brick colour, very soluble, deliquescent, and of a very styptic taste.

BROMIDE OF LIME.

This compound is obtained in the same manner as iodide of lime, the bromide of iron being substituted in solution for the iodide of iron. It is in small thin pellicles, white, very deliquescent, and of a hot taste, like chloride of lime.

BROMIDE OF MAGNESIUM.

By heating a solution of bromide of iron with an excess of caustic magnesia, filtering it and evaporating, this salt is the product. It generates in prismatic pellicles of a bitter taste, and is very deliquescent.

BROMIDE OF BARIUM.

The same process as the iodide of barium. This bromide is in rhomboidal prisms, less deliquescent than the preceding, and has a nauseous disagreeable taste.

Proto-bromide of mercury is obtained by carefully pouring a very weak solution of proto-nitrate of mercury into the bromides of potassium, lime, and soda. The yellowish white deposit washed and dried constitutes this salt, which may be easily sublimed. It is yellowish, particularly when warm, and insoluble in water.

DEUTO-BROMIDE OF MERCURY

Is obtained by directly combining brome with mercury, and subliming ; or by the sublimation of equal parts of deuto-sulphate of mercury and bromide of potassium.

PROTO-BROMIDE OF MERCURY.

This salt is very volatile, and very soluble ; it crystallizes in thin mother-o'-pearl pellicles. The bromides of potassium and sodium are obtained by decomposing bromide of iron by the carbonates of potash and soda, filtering and evaporating. The first is slightly deliquescent, rather salt, and crystallizes in cubes. The second has an alkaline taste, and crystallizes in pellicles, and very soluble.

Brome has the same medicinal virtues as iodine, but rather more active.

CHLORINE

Was discovered by Scheele, and by him was regarded as a compound body, receiving the name of dephlogisticated marine acid. At the period the new vocabulary was formed, it was called oxygenated muriatic acid, and lastly, Kirwan gave it the name of oxy-muriatic gas, till the experiments of Gay, Lussac, and Thenard, led to this remarkable conclusion—that oxygenated muriatic acid was not a compound body but a simple one.

PREPARATION OF SOLUTION OF
CHLORINE IN WATER.

Take one part of per-oxide of manganese in fine powder, and five or six parts of hydrochloric acid, mixed together in water, and put into a matras which is capable of containing nearly double such quantity, a crooked tube is then to be applied to its neck, which, in a Wolf's apparatus, has three or four flaggons; the saturated water must only be used from the third and fourth flaggon.

ANTIPSORIC SOLUTION OF CHLORIDE OF LIME.

Take chloride of lime, three pounds ; distilled water, one pound : macerate, dissolve, and filter.

MANNITE.

A luscious substance, crystallizing in small long prisms, extracted from manna ; some chymists call it sugar of manna, but being incapable of fermentation it cannot be termed sugar. To obtain mannite, take some manna in tears, treat it by boiling alcohol, filter, and crystallize ; by remaining undisturbed, mannite is precipitated in small pellicles of the most perfect whiteness. It is soluble in water, almost in all proportions, and makes a nice syrup. It melts at from 105° to 110° in a colourless liquid, resembling glue in substance, which crystallizes on cooling ; heated more powerfully, it burns and decomposes like sugar.

Use of Mannite.—It is very preferable to manna, possessing all the laxative properties of manna without its extractive extraneous matter and smell. It is a decided purgative in small doses.

DELPHINE.

This alkali was discovered in 1819, in the seeds of the staphisagria (*Delphinium stavisagria*).

PREPARATION OF DELPHINE.

Boil, in a small quantity of distilled water, some of the seeds, cleansed from their coats, and reduced to a fine paste. Pass it through a cloth, and filter the decoction. Add pure magnesia, and continue to boil it some minutes : at the end of which time, filter it again ; and the residuc, well washed, submit to the action of highly-rectified alcohol. Then, by evaporating the alcoholic tincture, delphine is obtained, in the form of a white powder, presenting some crystalline points.

PROPERTIES OF DELPHINE.

In a state of purity, it is in the form of a white powder, crystalline when moist, which soon becomes opaque exposed to the air. It has no smell, is of a bitter acrid taste. Water dissolves a very minute portion of it, which is only recognised by a slight bitter taste. It is very soluble in alcohol and ether; the alcoholic solution turns syrup of violets very green, and changes turnsol paper blue, reddened by acids. Delphine, in conjunction with sulphuric, nitric, hydrochloric, oxalic, acetic acids, &c. forms neutral salts, very soluble, the taste of which is extremely bitter and acrid. Alkalies precipitate it in the form of a white jelly.

PREPARATION OF GENTIANINE.

Take powdered gentian, and treat by cold ether. At the end of forty-eight hours, a greenish-yellow tincture is obtained, which filtered, poured into a wide pan, and exposed

to heat, in cooling, if the liquor is sufficiently concentrated, forms a yellow crystalline mass, possessing a very decided smell and taste of gentian. This is to be treated by alcohol, till it is no longer of a citron colour. Put the washings together, exposed to a good heat, and the yellow crystalline substance re-appears, which, after evaporation, forms a mass of a very bitter quality. Taken up again by weak alcohol, it re-dissolves in part, leaving a certain portion of oily matter not dissolved. This latter alcoholic solution, besides the bitter principle of gentian, contains an acid substance and the odorous matter of the gentian. By evaporating this liquor to dryness, diluting it in water, adding a small quantity of calcined and well-washed magnesia, boiling and evaporating it in a water-bath, the greater portion of the odorous matter of the gentianine is driven away; the acidity disappears by the magnesia, and the yellow bitter principle remains partly free and partly combined with the magnesia, to which it communicates a beautiful yellow colour. Then, by boiling this magnesia with

other, the major part of the bitter principle is taken away, which is obtained pure, and detached by evaporation. To separate the largest quantity of the bitter principle which remains fixed in the magnesia, and that the other cannot take away, it is treated by oxalic acid, in sufficient quantity to obtain acidity. This acid possesses itself of the magnesia, and leaves the bitter principle to be taken up in the manner already described.

PROPERTIES OF GENTIANINE.

It is yellow, inodorous, possessing a very powerful aromatic bitter of gentian, and which is much increased when dissolved in an acid. It is very soluble in ether and alcohol, and separates from them by spontaneous evaporation, in the form of very small crystalline yellow pellicles. It is much less soluble in cold water, which, nevertheless, it makes very bitter; boiling water dissolves more. The alcalies, diluted, deepen its colour very much, and dissolve rather more than

water. Acids weaken its colour very remarkably. Its solutions are almost colourless with sulphuric and phosphoric acids, and *yellowish* with weaker acids, such as acetic. Concentrated sulphuric acid blackens it, and destroys its excessive bitter. If exposed in a glass tube to the heat of boiling mercury, it is sublimed in the form of small yellow crystalline pellicles. One part is decomposed. It does not perceptibly change the colour of turnsol blue, or become reddened by acids. It appears neutral. It is most generally prescribed in tincture.

TINCTURE OF GENTIANINE.

Take alcohol at 24°, one ounce ; gentianine, five grains.

SYRUP OF GENTIANINE.

Take simple syrup, one pound ; gentianine, sixteen grains.

LUPULINE

Is presented in the form of small brilliant berries, yellowish, which cover the base of the shells of the hop. It is of a golden colour, pulverulent, and possesses an aromatic smell. Submitted to an analysis, it has been found principally to consist of resin, a small portion of volatile oil, and a bitter principle, which latter is more properly lupuline. It is very bitter, very soluble in water, alcohol, and ether, to which it communicates its excessive bitter.

TINCTURE OF LUPULINE.

Bruised lupuline one ounce, alcohol 36° two ounces, digest six days in a close vessel ; express it strongly, filter, and make up the quantity of three ounces by alcohol.

SYRUP OF LUPULINE.

Alcoholic tincture of it one part, simple syrup, seven parts. When the tincture is mixed with the syrup, it separates in a state of extreme division, giving to the syrup the appearance of barley.

PIPERINE.

This substance was discovered in black pepper. It is a vegetable alkali ; crystalline similar to resins, and of a peculiar nature.

PREPARATION OF PIPERINE.

Take two pounds of black pepper powdered, which digest with three pounds of alcohol 36° in a gentle heat. Then boil it, suffer it to stand and cool, then pour it off, and repeat the operation with fresh alcohol. Unite the two liquors, and pour into this tincture two pounds of distilled water, and

three ounces of hydro-chloric acid. The liquor becomes thick, and a precipitate is formed of a deep gray colour, which partakes principally of fatty matter. This deposite being separated, beautiful crystals are formed on the filter and edges of the vessel, which are no other than piperine. By adding water till the liquor is no longer thick, a fresh quantity is obtained. The crystalline matter is presented in the form of prisms with four flat sides, two parallels of which are perceptibly larger; the prism is terminated by an inclined face. Piperine is totally insoluble in cold water; boiling water dissolves a small quantity of it, which is precipitated on cooling. It is very soluble in alcohol, less so in ether, more so in heat than in cold. Its medicinal properties are similar to quinine.

LACTUCARIUM

Is the white viscous juice of the garden lettuce (*Lactusa sativa hortensis*) extracted without heat at the time of flowering. It is obtained by incisions, and is of a bitter taste. It concretes and quickly grows brown and becomes hard and brittle, like gum, but easily resumes a paste consistency if exposed to the air. If preserved in a bottle well corked, it emits a slight ammoniacal smell, very fugacious. This juice evaporated in a gentle heat, preserves the particular smell of the plant, and has its taste. When dried it attracts the dampness of the air, which distinguishes it from the extract of lettuce prepared by the usual process, which keeps dry if exposed. Dissolved in distilled water and filtered, the solution is clear, and of a brownish yellow. This liquor changes the paper of turnsol very red; with ammonia it makes a white flocky precipitate, which appears principally to be phosphate of lime. The aqueous solution of gall-nuts likewise makes an abundant precipitate with it. It is the

same with oxalate of ammonia, nitrate of barytes and silver, and large portions of alcohol: chloride of platina has no effect upon it.

SALTS OF GOLD.

TO PREPARE CHLORIDE OF GOLD.

Take one part of fine flattened gold, very pure, cut it in small pieces, and put it in a white glass phial; pour upon it three parts of aqua regalis (composed of one part of nitric, and two parts of hydrochloric acid), and heat the whole on a very small sand-bath, so placed as to be able to receive the liquid without loss, in case the phial should break. The solution of the gold will soon take place. The liquor should be evaporated till the smell of chlorine is recognised, which will be easily proved, for from the composition of the aqua regalis, a moment occurs in which nothing more than nitric acid is set free; and

the disengagement of the chlorine, which takes place immediately afterwards, indicates the commencement of decomposition of a small portion of the chlorine formed. The vessel should then be removed from the fire, and suffered to cool. The chloride soon generates into a crystalline mass, which presents a great number of beautiful yellow pellicles. In this state, the chloride may be considered as pure as necessary. It does not contain an excess of hydrochloric acid, which prevents its being deliquescent. Thus it may be preserved in the same phial in which it was prepared, tied over with a piece of common paper, without fear of its altering.

PREPARATION OF CHLORIDE OF GOLD AND SODIUM, OR MURIATE OF GOLD AND SODA.

Dissolve four parts of gold in aqua regalis, evaporate the solution to dryness, pour thirty-two parts of water on the produce, and one part of chloride of sodium; concentrate the

liquor to half its weight, *i. e.* sixteen parts, it realizes in cooling crystals, composed of 69·3 of chloride of gold, 14·1 chloride of sodium, and 16·6 of water. Is very similar to the chloride of gold and potassium. These double salts are of a beautiful yellow colour, and present the form of long quadrangular prisms; they attract damp, but in a less degree than acid chloride.

PREPARATION OF OXIDE OF GOLD.

Take a given quantity of chloride of gold, which introduce into a phial of white glass; pour on it six or seven times its weight of boiling water, in order to dissolve the chloride, and add by degrees crystallized barytes, until the liquor has lost its acidity, which may be easily known by steeping in it a piece of blue turnsol paper, which will not change colour by this immersion. Boil the liquor a moment, and let it cool, and filter it. Wash the precipitate several times with warm water; unite all the washings, and evaporate them to dryness; suffer it to cool, and dissolve the saline

mass in water. By this means, a fresh quantity of oxide of gold is separated, which should be reunited to the preceding. The evaporation of the liquor should be repeated a second time, if requisite. These liquors only contain small quantities of gold, which can be separated by the means already explained, if it is worth doing. The oxide of gold remaining on the filter should be then washed with boiling water, until the washings no longer precipitate nitrate of silver; then two or three washings should be made with water, acidulated with nitric acid: by this means, the little subcarbonate of barytes, which may have formed during the operation, and which will be interposed in the oxide, will be taken away. Repeat again some washings of pure water, to prove that no baryta is present, when, by pouring in a small quantity of sulphuric acid, a white precipitate is not thrown down. Then dry it in a proper temperature.

PROPERTIES OF OXIDE OF GOLD.

Oxide of gold, in a state of hydrate, is yellow ; but dried, it is of a violet colour (dark). Whatever precautions may be used in the desiccation of this oxide, it never entirely dissolves in hydrochloric acid ; it always leaves a residue, certainly very weak, but which proceeds from one part of oxide of gold being reduced to a metallic state in drying. Neither concentrated, or diluted sulphuric, or nitric acids, have any action on the oxide. This property might serve to detach oxides of the same colour, which may have been purposely used in adulteration, such as those of copper, iron, &c.

PREPARATION OF OXIDE OF GOLD BY TIN.

Take oxide of gold, and dissolve it in at least sixteen times its weight of cold distilled water, and add to it a weak solution of protohydrochlorate of tin, acidulated by hydro-

chloric acid. Add the latter liquor, by small quantities, to the former, until there ceases to be a precipitate. Filter the liquor, and well wash the precipitate with boiling water, till the washings no longer precipitate nitrate of silver. Then dry this precipitate, at the temperature of boiling water, and there results the "purple of Cassius."

SALTS OF PLATINA.

The processes for obtaining these salts are the same as those used for the salts of gold.

GRENADINE.

Take powdered bark of the root of the pomegranate tree, extracting its virtues by ether, and repeating it a second time by boiling alcohol, and rendering it in the form of a soft extract. Then by treating this extract by water, the grenadine is easily dissolved, which is purified by several crystal-

lizations in alcohol. Grenadine is capable of being sublimed, is neither alkaline nor acid, but a neutral substance. Cold alcohol dissolves traces of it, but when boiling it easily dissolves it. Is not soluble in ether, but wholly so in water. Nitric acid transforms it into oxalic acid by the assistance of heat. It has a very sweet taste, resembling sugar, but not possessing the property of fermenting; it may be easily distinguished from sugar, besides its crystallization not at all resembles sugar.

ALKALINE PASTILES.

Take dry carbonate of soda, five grammes; powdered white sugar, dried, ninety-five grammes; mucilage of tragacanth, *Q. s.*; essential oil of mint, two or three drops. These pastiles should be kept in bottles, well corked. They may be aromatized by substituting any other essential oil.

LACTIC ACID

Is extracted either from milk, or the juice of the red beet. If the latter is used, it is set on a stove, the temperature of which is constantly maintained between 25° and 30° . At the end of some days a tumultuous movement, *i. e.* viscuous fermentation, is manifested in the whole mass; hydrogen gas, mixed with hydro-genated carbonic gas is disengaged in great abundance. When the liquor has resumed its former fluidity, and the fermentation terminated, which usually happens after about two months; it should be evaporated to the consistency of a syrup; the whole mass is then traversed by a multitude of crystals of mannite, which, washed with small quantities of cold water, and pressed, are of the greatest purity; besides that, the mass contains a sugar which presents all the properties of the sugar of the grape. The produce of the evaporation is treated by alcohol, which dissolves the lactic acid and precipitates many other matters

which have not been examined ; the alcoholic extract is taken up again by water, which leaves a new deposit ; the liquor is then saturated by carbonate of zinc, from whence results a precipitation much more abundant than the others. After concentration the lactate of zinc crystallizes, it is collected and treated with water, to which animal charcoal is added, previously washed with hydrochloric acid ; it is filtered boiling, and the lactate of zinc is separated in crystals of the most perfect whiteness ; they are again washed with boiling alcohol, in which they are insoluble. They are afterwards, and successively, treated by baryta and sulphuric acid, and the lactic acid is extracted, which is concentrated in vacuo. Lastly, by agitating it with sulphuric ether, which dissolves it, some traces of a flocky matter are separated. A large quantity of milk left for some time to ferment, and treated in the same manner, likewise supplies lactic acid.

Physical and Chemical Properties of Lactic Acid.—Concentrated in vacuo until it no longer loses any water, is a colourless liquid of a syrupous consistency, the sp. gr. of which in temperature 20·5 is equal to 1·215. It is inodorous ; its taste is excessively acid in character with the most powerful vegetable acids ; exposed to the atmosphere, it attracts moisture ; water and alcohol dissolve it in every proportion. It dissolves phosphate of lime with great promptitude. Lactic acid has been prescribed with success in dyspepsia, gravel, &c.

CONCENTRATED INFUSIONS.

ESSENCE OR CONCENTRATED INFUSION
OF SENNA.

Take twenty-one ounces of senna leaves, fourteen drachms of sliced ginger, one ounce of bruised cloves, and seven pints of boiling water. Macerate twenty-four hours, strain the liquor, and evaporate till reduced to two pints. Five minutes before removing the evaporating pan from the fire, add four ounces of spirit of wine. Set it aside for the dregs to subside, pour off the clear liquor, and keep it in a closely stoppered bottle.

CONCENTRATED INFUSION OF GENTIAN.

Take half an ounce of sliced gentian root, have an ounce of orange peel, one ounce of lemon peel, and four ounces of boiling water. Macerate twenty-four hours, and evaporate to three quarters of a pint. After the evaporated liquor is become cold, add three ounces of spirit.

CONCENTRATED INFUSION OF ROSES.

Take three ounces and four drachms of rose leaves, ten and a half ounces of refined sugar, twenty-one drachms of dilute sulphuric acid, and two and a half pounds of boiling water. Infuse for six hours, and strain.

Remark.—It is exceedingly improper, as directed in the Pharmacopœia, to add the sulphuric acid by itself, and after the infusion is made. The spirit should be added to the water in the first place, as, by its admixture with it, it increases its power as a menstruum, and makes a perfectly bright tincture ;

whereas, the addition of the acid lastly, precipitates a portion of extractive matter. Rose leaves, without heels, should be used, and highly-refined sugar.

CONCENTRATED COMPOUND INFUSION OF ORANGE PEEL.

Take fourteen drachms of dried orange peel, seven drachms of fresh lemon peel, three and a half drachms of bruised cloves, and three and a half pints of boiling water. Macerate twelve hours, strain the liquor and evaporate to half a pint, then add, when cold, one and a half ounce of spirit.

CONCENTRATED INFUSION OF COLOMBO.

Take fourteen drachms of sliced colombo, and three and a half pints of boiling water. Macerate twenty-four hours, strain and evaporate to half a pint, and add two ounces of spirit.

CONCENTRATED INFUSION OF
RHUBARB.

Take seven drachms of sliced rhubarb, and a pint of boiling water. Macerate twelve hours ; strain, and add two ounces of spirit of wine.

Note. — Concentrated infusions of all vegetables may be prepared according to the above rules, except such as are extremely mucilaginous ; to such, the addition of any spirit or tincture would precipitate the mucilage.

DECOCTIONS.

IN making decoctions due attention should, on all occasions, be paid to the directions of the Pharmacopœia, and never substitute the extract of any vegetable in lieu of the root, leaf, or seed. Many apothecaries, and some druggists, conceive there can be no difference; but if any thing more than another tends to bring disrepute upon an establishment, I should say, such a deviation is the most likely. The same remark will apply also to syrups, and particularly to syrup of poppies, taraxacum, and marsh mallows. All vegetable substances should be preserved, nicely dried, and should be sliced, for making decoctions. After the boiling has continued long enough the vessel should be removed from the fire, the liquor should be strained off, and set aside for the dregs to subside.

EXTRACTS.

ALL extracts should be prepared at a very moderate temperature, and no greater quantity of water should be used than is absolutely necessary to extract the virtues of the vegetable employed; for it so happens, that according to the quantity of liquor employed, and the requisite length of time taken up by evaporation, material depreciation in the quality of the product takes place, depriving it of any volatile principle it might have possessed, besides the destructive power of intense heat in converting all active vegetable *medicinæ* into inert carbonaceous matter. Water extracts the virtues of almost all vegetables, excepting sundry aromatic herbs; to these latter it will be necessary to give a spirituous infusion, in order to extract both the flavour and odour of the subject, and which upon evaporation yields a thick gum-resinous substance, partaking of the peculiar character of the aromatic employed. Eva-

poration cannot take place too slowly, and more particularly towards the end of the process ; otherwise, as the extractive matter continues to thicken, it will burn to the sides of the vessel, and contract an unpleasant taste and empyreumatic smell. The liquor, from the commencement of evaporation, should be constantly stirred, or its surface becomes encrusted with concrete particles, which prevent the necessary evaporation.

EXTRACT OF MYRRH.

Take a pound of bruised gum myrrh, and boil in a gallon of water for some time ; decant the clear liquor, and evaporate to a proper consistence.

PERFUMED WATERS.

WE find it directed in many editions of the Pharmacopœias, that after the distillation of any aromatic or perfumed water, a certain quantity of proof spirit should be added, in order (as it is said) to make them keep the better. This surely must be a mistake; for if it be a delicately-scented water, the flavour or the minutest quantity of spirit will (if not immediately), in the course of a short time, supersede its aroma altogether: for, be it understood, that water never did, nor ever can, of itself, take up any portion of essential oil in solution. It is true, water becomes impregnated or flavoured with the aroma of oils, both by extemporation and distillation. Probably, very small quantities may remain minutely suspended in aqueous vehicle, and its presenee be very readily perceived by application to the tongue; but if spirit be added to a large bulk of water impregnated with aroma, it diffuses itself, and having

taken up whatever essential matter it may have met with, its office is performed, and being surrounded by a great mass of water (possessing no volatile principle), it follows, as a matter of course, that it is utterly impossible afterwards to detect the intended character of the water.

The best way of distilling all kinds of aromatic or perfumed waters is from essential oils, without any spirit whatever ; they will be more pure, more delicate in their character, and free from empyreuma, and will keep good any length of time, if kept tightly corked.

EAU DE COLOGNE.

(*Very good.*)

Take essence of cedrat, essence of orange, essence of citron, essence of bergamotte, of each thirty-eight drops ; essence of neroli thirty-two drops, essence of romain twenty-six drops, essence of meline twenty-six drops, and one pint of spirit of wine (thirty-two degrees over proof). Distil.

HUNGARY WATER.

Take six drachms of rosemary oil, one drachm each of English oil of lavender and siruba, two pints of rectified spirit of wine, and one pint of distilled orange-flower water.

Remark.—Dissolve the oils in spirit, and afterwards add the water gradually and filter.

LAVENDER WATER.

Take an ounce each of English oil of lavender and bergamotte, a pint of rectified spirit of wine, and four cloves. Shake them well together, and let stand a month, then add two ounces of distilled water, and distil.

Remark.—All perfumes should be distilled, which may be done by using a glass retort and receiver, placed upon a table, having an argand lamp burning underneath the retort at a moderate distance. It is very necessary also, in manipulating for delicate perfumes, that the organ of smell should be properly adjusted: *i. e.* never distress the olfactory

nerves, but rather humour them with a day's holiday, after which they will be more able to perform their uses and functions.

BOUQUET DE LA REINE.

Take one ounce of essence of bergamotte, three drachms of English oil of lavender, half a drachm of oil of cloves, half a drachm of aromatic vinegar, six grains of musk, and one and a half pint of rectified spirit of wine. Distil.

HONEY WATER.

Take each of rose water and orange-flower water two pounds, oil of cloves half an ounce, essence of bergamotte two ounces, oil of lavender half an ounce, musk sixteen grains, rectified spirit of wine one gallon, saffron a sufficient quantity to colour it.

AQUA ODORIFERA; OR, FRAGRANT HONEY WATER.

Take nutmegs one ounce, ambergris and musk, of each five grains, spirit of wine half a pint. Bruise the nutmegs, and put them with the ambergris and musk to the spirit, and macerate for a fortnight; then add rose and orange-flower water, of each one ounce, and essence of citron two drachms.

Remark.—This form, like some others, is given, because the object of improvement over any recipe the trader may possess, is always valuable. A perfume in mediocrity is no more valuable than a piece of mediocre music. The public exercise the privilege of judging what will sell and what will not.

ODORIFEROUS ESPRIT.

Take two drachms of oil of rosemary, two pints of spirit of wine, half an ounce of essence of Tonquin bean, twelve drops of oil of organum, twenty ditto of cassia, ten ditto of

cajuput, one drachm of tincture of angelica, six drachms of bergamotte, one drachm of oil of cloves, two drachms each of essence of lemon, essence of musk, and essence of ambergris, six drops each of essence of almonds and otto of rose, mixed altogether.

RED FLAME.

Take ten ounces of dried nitrate of strontian, three and a quarter ounces of sulphur, one and a quarter ounce of powdered oxymuriate of potash, and one ounce of finely pulverized sulphuret of antimony. Reduce the whole of the ingredients to a fine powder, and well mix them.

GREEN FLAME.

Take three and a quarter ounces of sulphur, nineteen ounces of exsiccated nitrate of barytes, one and a quarter ounce of powdered chlorate of potash, half an ounce of powdered charcoal. Mix altogether.

ESSENTIA ODORIFERA.

Take ten grains of musk, five ditto of civet, twelve ditto balsam of Peru, four ditto of oil of cloves, two ditto of oil of rhodium, half a drachm of salt of tartar, and two ounces of rectified spirit of wine. Digest them together in a close vessel, with a heat equal to that of the sun in summer, for several days; and afterwards pour off the essence for use.

Remark.—This is an exquisite perfume, and a single drop gives a fine flavour to many ounces of other liquors.

ODOR DELECTABILIS.

Take distilled rose and orange-flower waters, of each four ounces; oil of cloves and English oil of lavender, of each a drachm; oil of bergamotte, two drachms; musk, two grains; and a pint of spirit of wine. Let them macerate a week, and add a drachm of essence of musk.

Remark.—This perfume is a great favourite with the public, it takes precedence of many of the most popular advertised ones.

TINCTURES.

GRIFFIN'S TINCTURE.

TAKE six ounces of honey, half an ounce of saffron, six drachms of flowers of benjamin, five drachms of opium, half an ounce of camphor, half an ounce of prepared kali, two drachms each of oils of aniseed, and carraway, and six pints of proof spirit.

Remark.—Add a sufficiency of colouring matter to make a deep tincture.

RUSPINI'S TINCTURE.

Take Florentine orris root and rhatany root, of each eight ounces; cloves, one ounce; gum benzoin, four drachms; rectified spirit of wine, two pints; musk, two grains.

GOUT TINCTURE.

Take two pints of French brandy, two ounces of Seville orange peel ; infuse a week in a moderate heat, then add four ounces of the root of Turkey rhubarb, two ounces of contrayerva root, two drachms of zedoaira, and one ounce of cloves ; infuse four days, and strain. Dose, three teaspoonfuls every night.

TOOTH TINCTURE.

Take two drachms of spirit of nutmegs, half an ounce of tincture of rhatany, six drachms of compound tincture of cardamoms, one drachm each of compound spirit of lavender and spirit of cinnamon, and six drops of esprit de rose.

TINCTURE OF ALCOHOLIC EXTRACT OF
CANTHARIDES.

Take four grains of extract, and dissolve in one ounce of spirit of wine. Dose, ten drops twice a-day in impotency, nocturnal emissions, &c.

TINCTURE OF ALCOHOLIC EXTRACT OF
NUX VOMICA.

Take six grains of extract to one ounce of spirit of wine, and give in doses of twelve to twenty drops.

TINCTURE OF ALCOHOLIC EXTRACT OF
LUPULINE.

Take twenty grains of extract to one ounce of spirit of wine, and give in doses of from fifteen to thirty drops twice a-day in dyspepsia.

TINCTURE OF CONITINE.

Take eight drops of conitine, and one ounce of spirit of wine. From twenty to thirty drops in any aromatic water every three or four hours, for sensitive heat in the stomach, diseases of the liver, &c.

TINCTURE OF CROTON TIGLIUM.

Take four drops of oil of tiglium, and one ounce of tincture of myrrh, and give in doses of from one to two drachms as a purgative.

TINCTURE OF EMETINE.

Dissolve five grains of emetine in an ounce of spirit of wine, and give in doses of from ten to thirty drops in the lieu of ipecacuanha wine.

TINCTURE OF ERGOT OF RYE.

Take four ounces of coarsely powdered ergot of rye and one pint of proof spirit.

TINCTURE OF EXTRACT OF COLCHICUM.

Take eight grains of extract and one ounce of spirit of wine. Dose, one drachm.

TINCTURE OF GENTIANINE.

Take eight grains of gentianine and one ounce of spirit of wine. Dose, a drachm to be taken in a little soda water, for debility, &c.

TINCTURE OF HYDRIODATE OF POTASH.

Take six grains of hydriodate, six drachms of distilled water, and two drachms of spirit of wine. Dose, forty drops two or three times a-day in any bitter infusion.

TINCTURE OF IODINE.

Take a drachm of iodine and an ounce of spirit of wine. Dose, from ten to thirty drops in bitter infusion.

Remark.—The best mode of making a complete solution of iodine is, by the addition of its hydriodate, and without the use of spirit.

ESSENTIAL OILS

INTENDED for perfumery should, just after they have been distilled, remain exposed to the atmosphere for about a week, in vessels partially covered over with paper, to deprive them of any disagreeable odour they may possess. After such a time they tend to become limpid, and should be put in small bottles, and kept in a cold place. The bottles should be full to the cork, and very securely stoppered. Those essential oils intended only for medicinal purposes do not require such care, for, under all circumstances, they possess their natural qualities of great heat and pungency. There is a great disposition, however, on the part of oils possessing the essential quality, after the second year, to partake of the character and flavour of turpentine; they are, consequently, improper for use in perfumery.

LOZENGES.

DAWSON'S LOZENGES.

TAKE a pound of refined sugar, one ounce of powder of gum arabic, two drachms of Italian juice, and a sufficiency of boiling water.

SPONGE LOZENGES.

Take six ounces of refined sugar ; four ounces of powdered burnt sponge ; powder of gum arabic and rose water, of each one ounce.

HEARTBURN LOZENGES.

Take two pounds and a half of refined sugar, one pound of prepared chalk, two ounces each of powdered gum arabic and bole, half an ounce of powder of nutmegs, and half a pint of boiling water (or a sufficient quantity).

BLACK LOZENGES.

Take six pounds and a half of powdered Italian juice, six pounds of refined sugar, two ounces of orris powder, half a pound of gum arabic in powder, half a pound of starch powder, one drachm of oil of aniseed, and a sufficiency of boiling water.

WORM LOZENGES.

Take four pounds of refined sugar, half a pound of calomel, half an ounce of gum tragacanth, and six ounces of boiling water.

NITRE LOZENGES.

Take purified nitre, four ounces ; double refined sugar, a pound. Make them into lozenges with mucilage of gum tragacanth.

Remark.—This is a very proper and agreeable form of administering nitre for cases of sore throat.

JEWS' LOZENGES.

Take cinnamon in powder, myrrh in powder, and saffron in powder, of each four drachms, calamus aromaticus and powder of angelica, of each nine drachms, clarified honey a sufficient quantity.

PECTORAL LOZENGES.

Take white candy in powder, a pound and a half; orris powder, an ounce and a half; licerice juice, an ounce; extract of poppies, a drachm; and mucilage of gum tragacanth, a sufficient quantity to make a mass to form lozenges.

BLACK LOZENGES.

Take an extract of licorice and refined sugar in powder, of each ten ounces; gum tragacanth elect in powder, half a pound.

Remark.—A perfect smooth mucilage of the tragacanth must be made, then add the

sugar, and lastly the licorice, and place them altogether on the hob, or at the mouth of an oven, and keep stirred till ready to be made into lozenges.

EDINBURGH LOZENGES.

Take extract of poppies, two ounces ; powdered lump sugar, half a pound ; gum tragacanth, four ounces. Drop as much water as will be sufficient to form lozenges.

FRIGORIFIC MIXTURES.

TAKE sulphate of soda, three parts ; dilute nitric acid, two parts :

or,

Sulphate of soda, six parts ; muriate of ammonia, four parts ; nitrate of potash, two parts ; dilute nitric acid, four parts.

or,

Sulphate of soda, six parts ; nitrate of ammonia, five parts ; dilute nitric acid, four parts :

or,

Phosphate of soda, nine parts ; dilute nitric acid, four parts :

or,

Phosphate of soda, nine parts ; nitrate of ammonia, six parts ; dilute nitric acid, four parts :

or,

Sulphate of soda, eight parts ; muriatic acid, five parts :

or,

Sulphate of soda, five parts ; dilute sulphuric acid, four parts.

Note.—These few forms for frigorific mixtures are taken from Ferguson's and Ure's Tables.

GENERAL RECIPES.

CRUDE CAYENNE, SOLUBLE OR
CRYSTALLIZED,*Of double strength.*

Put into a jar a pound of best Cayenne pepper, pour upon it a sufficiency of spirit of wine to cover it. Let them stand twenty days macerating, then strain the liquor from the dregs through a coarse hair sieve. To the strained liquor add three pounds of fine salt, half an ounce of rose pink, and six drachms of vermilion (previously rubbed together), then evaporate to dryness in an earthen pan by the fire; and, lastly, pass it through a coarse hair sieve.

Remark.—Although the product from one pound of crude cayenne pepper by the above mode be three pounds, yet the potency of the pepper is very considerably increased, in consequence of the strength of every particle of the pepper being taken up by the salt, and again given out when applied to use, by re-solution.

CORDIAL ESSENCE FOR FLAVOURING.

Take spirit of wine and distilled water, of each half a pint ; essence of almonds, half a drachm ; orange-flower water, two ounces ; refined sugar, half a pound ; and isinglass, a drachm.

Remark. — Dissolve the essence in the spirit, and the isinglass in the water, then add the other ingredients.

LIQUOR OPII SEDATIVUS.

Take four ounces of crude opium, fourteen ounces of boiling distilled water, rubbed together till reduced to a soft paste, then add an ounce each of verjuice and sherry wine.

KENNEDY'S CORN PLASTER.

Take yellow wax, eight ounces ; turpentine, two ounces ; powdered verdigris, four drachms. Melt the wax and turpentine together, and stir in the verdigris.

FORD'S LAUDANUM.

Take opium, an ounce (cut small); cinnamon and cloves, of each, in powder, one drachm; alcohol and water, of each eight ounces.

TO MAKE CERE-CLOTH.

Take simple (lead) plaster, one pound; gum ammoniacum in powder, and Venice turpentine, of each an ounce. Melt the plaster and turpentine together first, then add the ammoniacum, and melt again.

INDIAN LIQUEUR.

Take fourteen drachms of red sanders, two drachms of aloes, one drachm of yellow sanders, calamus aromaticus, galanga, rhubarb, and wormwood, of each three drachms; cinnamon, four drachms; mace, two drachms; amber, four drachms; musk and ambergris, of each a scruple; esprit de rose, twenty-five

drops; vanilla sugar, two ounces (eight ounces of vanilla to two pounds of lump sugar); alcohol 33°, five pints; fine lump sugar, eight pounds; distilled water, five pounds.

Note.—All the substances, with the exception of the sugar and essence of roses, are to be macerated in the alcohol for a month, taking care to shake it often. Express and filter it. The sugar should be dissolved in the water, and the essence of roses added thereto. In a few days afterwards it should be bottled.

POT POURRIE.

Take a pound of rose leaves, four ounces of pimento, three ounces of orris powder, two ounces of cassie buds, two grains of best musk, twenty drops of English oil of lavender, one and a half drachm of essence of bergamotte, two ounces of bay salt, and two drachms of gum benzoin. All these to be mixed together, and keep adding from time to time.

Remark.—Between each layer of rose leaves sprinkle a small quantity of bay salt, and so on every time a fresh quantity is added.

HAIR DYE.

Take two drachms of silver, half an ounce of steel filings, and an ounce of nitric acid, and eight ounces of rain water. Pour off the supernatant liquor, which constitutes the dye.

Remark.—To be applied by brushing with a close brush. Although there is great objection to the use of nitrate of silver as a dye, from its liability to darken the skin, nevertheless it is very far preferable to caustic earths, from their almost certainty to act as depilatories.

INEXHAUSTIBLE SALTS.

Take half a pound of muriate of ammonia, three ounces of sub-carbonate of potash, twenty drops of oil of cloves, eight ditto of oil of cinnamon, twelve ditto of oil of rosemary,

a grain of musk, twenty drops of essence of lemon, ten ditto oil of bergamotte, twelve grains of camphor, and half an ounce each of spirit of wine, and strongest liquor of ammonia.

Remark.—Let the camphor and the muriate of ammonia be first powdered rather coarsely, then add all the other ingredients, rub them together for *one minute*, then fill your bottles, which should be kept closely corked. The great superiority of these salts over those usually sold in the shops is very considerable, and an important improvement over Preston salts.

TO MAKE KALYDOR.

Blanch half an ounce of bitter almonds, bruise them in a mortar with five grains of corrosive sublimate, then add half a pint of distilled rose water gradually, briskly rubbing altogether, and strain through *very fine* muslin.

CREAM FOR THE HAIR.

Take two ounces of marrow pomatum, two ounces of almond oil, put together in a cup or jar. Place them near enough to the fire to melt, and whilst cooling stir in two drachms of oil of jessamine or bergamotte.

Remark.—The above form is a great imitation of Fox's cream, a very celebrated remedy for the hair.

THE BEST BLACK DRAUGHT.

Take two ounces of best senna, three drachms each of bruised ginger and cloves, half an ounce of extract of licorice root, and half a pint of boiling water. Pour the water upon the other articles, and let them macerate for four hours, and strain. To twenty-one ounces of the strained liquor, add two ounces of tincture of senna, ten ounces of best Epsom salts, and an ounce of sal-volatile.

Remark.—An ounce and a half of this mixture contains half an ounce of salts. It improves considerably by keeping.

COLD CREAM THAT WILL KEEP.

Take ten ounces of fresh lard, free from salt, four ounces of oil of almonds, two ounces of spermaceti pounded. Put these together in an earthen pan, and place it on the hob, or in a water bath, and when completely melted, stir in gradually (with a piece of clean wood) six drachms each of distilled rose, cinnamon, and orange flower waters, and when nearly cold, add two drachms of essence of bergamotte (or any other perfume you prefer).

 CURRIE POWDER.

Take each of tumeric and coriander seeds, four ounces ; black pepper, two and a half ounces ; best powdered ginger, fourteen drachms ; cinnamon, mace, and cloves (in powder), of each half an ounce ; lessor cardamom seeds, in powder, an ounce ; fresh powder of cummin seeds, two drachms ; and powdered cayenne pepper, an ounce.

Remark.—Be particular in purchasing each article recently powdered, and of first quality.

SOLUBLE COPAIBA.

Take a pound of copaiba, and add to it four ounces of nitric acid, let them stand about twelve hours, and add thereto a pint of spirit of wine, and distil, s. a.

CONCENTRATED CAMPHOR JULEP, OR
ESSENCE OF CAMPHOR.

Take half an ounce of tincture of myrrh, one and half ounce of spirit of camphor, and four ounces of rectified spirit of wine.

Remark.—The myrrh renders the camphor miscible with water, without which it would be decomposed. To deprive the myrrh of its colour, add to it some animal charcoal. About fifty drops will make a pint of ordinary camphor julep. The mode of administering camphor in suspension, by mucilage, is entirely obviated by the myrrh suspending the camphor in the minutest state of division, and in a perfectly miscible state.

MILK OF ROSES.

(*To keep good.*)

Take an ounce of Jordan almonds, five ounces of distilled rose water, an ounce of spirit of wine, half a drachm of Venetian soap, and two drops of attar of roses.

Remark.—Blanch the almonds, dry them well on a cloth, beat them until they become a complete paste, then beat the soap and mix with the almonds, and lastly, add the rose water and spirit, and strain through the *finest cloth*. I have been enabled to keep this form of Milk of Roses good for twelve months. It is very necessary to wipe the almonds thoroughly dry, before beating them into a paste.

DR. CAMPBELL'S GREEN LINIMENT.

Take one ounce of powdered camphor, six ounces each of olive oil and pure water of ammonia, one ounce of extract of cicuta, and two ounces of compound spirit of ammonia.

Remark.—Dr. Campbell's remedy for rubbing enlargements of the joints and painful swellings.

PARISIAN DENTIFRICE.

Take two ounce of powder of myrrh, eight do. of Peruvian bark, eight do. of orris powder, three ounces of rose pink, thirty-two drops of oil of cinnamon, thirty-two do. of oil of cloves, and twenty four-ounces of prepared chalk.

CAMBRIAN OR WESTPHALIAN ESSENCE,
OR WOOD SMOKE.

Take half a drachm of Barbadoes tar, one drachm of liquid burnt sugar, a table spoonful each of port wine and brown vinegar, two drachms of salt, and seven ounces of water; let these stand macerating, the longer the better, and strain for use.

Directions for curing a moderate sized Ham.—Take three ounces of bay salt, and three table spoonfuls of the essence, and rub the ham thoroughly with it once a-day, for a week or longer, then remove it into a clean pan, and rub it over with the following mix-

ture:—Two table spoonfuls of the essence, quarter of a pound of brown sugar, two ounces of bay salt, and a table spoonful of brandy.

LAENNEC'S REMEDY TO CURE TOOTH-ACHE, AND PRESERVE THE TEETH FROM DECAY.

Take a dram of kreosote, and ten drachms of spirit of wine, and apply from time to time with a piece of cotton wool.

Remark.—Laennec asserts the power of kreosote to prevent decay. I certainly have witnessed extraordinary efficacy from the use of kreosote in curing the tooth-ache. A pledget of cotton being soaked in it, and merely renewed once a-week where the tooth is carious.

ÆTHERIAL ESSENCE OF GINGER.

Take six ounces of sliced Jamaica ginger, twelve ounces of spirit of wine, four ounces each of water and lump sugar, and two drachms of lesser cardamom seeds. Macerate for twenty-one days, and filter.

This is an elegant form of ginger. It is an excellent ingredient in all bitter infusions, and in combination with earthy carbonates as imparting a comfortable warmth in cases of languor, weakness of the stomach, flatulence, all cold and phlegmatic habits, cachexies, &c.

CORN SOLVENT.

Take liquor potassæ P. L. (solution of potash) and apply to the corn, and bind round with rag.

CRIMSON COLOUR.

Take eight scruples of oxide of cobalt, two ounces of nitro-muriatic acid (made thus : one part muriatic acid to two parts of nitric), let stand a month, then add two gallons of spring water and a pint of the strongest liquor of ammonia (or ammonia to excess).

Remark.—At first the mixture assumes a dirty colour, and it is not until some time after it is made, that it puts on its splendour.

GOLD LACQUER.

Take half a pint of spirit of wine, two drachms each of gum mastic and gum juniper, three drachms of Spanish annatto, half an ounce of turmeric root, and a drachm each of dragon's blood and salt of tartar.

TURLINGTON'S BALSAM.

Take of balsam of tolu, Peru, aloes in powder, gum myrrh in powder, and gum olibanum, of each six ounces; storax, a pound and two ounces; gum benjamin in powder, eighteen ounces; powder of gum arabic, six ounces; and spirit of wine, thirteen pounds. Digest in a gentle heat, and add the gum arabic, previously dissolved in three pints of water, and digest again.

RED ROSE SUGAR.

Take white sugar, a pound; juice of red roses, four ounces; red roses, dried, one ounce.

Remark.—Boil the sugar and the juice over a gentle fire till the juice is almost all evaporated, then throw in the dry roses reduced to a very fine powder. Pour all out upon a marble, and form it into lozenges according to art.

HIGHLY PERFUMED AROMATIC
PASTILES.

Take camphor and gum benzoin, in fine powder, of each half a drachm ; gum storax, half an ounce ; balsam of Peru, half a drachm ; powdered gum mastic, two drachms ; oil of nutmegs, twenty-five drops ; English oil of lavender and bergamotte, of each a drachm ; attar of roses, eight drops ; nitrate of potash, ten grains ; true cinnamon powder, and powder of cascarilla, of each two drachms ; musk, four grains ; orris powder, two drachms ; levigated charcoal, two ounces ; with mucilage of gum tragacanth, a sufficient quantity to make a mass. Divide into twenty or thirty grains for each pastile, and dry them very gradually.

LEMONATED KALI.

Take highly exsiccated citric (or tartaric) acid, twenty-five grains ; carbonate of soda (highly exsiccated), one scruple ; coarsely

powdered refined sugar (also dried), two drachms ; and essence of lemon, one drop.

Remark.—The acid and the soda must be deprived of their water of crystallization, to avoid spontaneous effervescence.

LINSEED LOZENGES.

Take linseed oil, one drachm ; syrup of marshmallows, four ounces ; gum tragacanth, in powder, two drachms ; boiling water, one ounce ; refined sugar, in powder, a sufficient quantity to form a thick paste.

EFFLORESCENT CHELTENHAM SALTS.

Take highly dried Epsom and Glauber salts, of each two pounds, and common table salt, two ounces ; reduce to a fine powder, and bottle.

Remark. — These salts are perhaps as useful a form of purgative salts as any. They remove such disorders as proceed from acidi-

ties in the primæ viæ. As an absorbent medicine they are much more efficacious than the usual absorbents of the shops. As a saline mixture, largely diluted with water, they tend materially to cleanse the stomach and bowels, by removing a great deal of crude undigested bile and feculent matter, which, when gotten rid of, produces a lightsome sense of pleasurable comfort. They are also of essential service in colicky pains or inverted peristaltick motion of the intestines, producing a considerable force and bourgarigmi, which speedily, by softening and relaxing the fibres, promotes a free and unrestricted passage.

TO MAKE WATCHMAKERS' OIL,

Which never corrodes or thickens.

Take some neatsfoot oil, and put into it some lead shavings, in order to neutralize the acid contained in the oil; let these stand together a considerable time (the longer the better), which improves it materially.

Remark.—This is the watchmakers' oil, sold at 18*d.* a drachm, by a celebrated house in Conduit Street, the sale for which is much more extensive than is generally supposed ; it is, in fact, the “universal remedy” for clocks, chronometers, and watches.

PRISMATIC DIAMOND CRYSTALS,

For office and other windows.

Take a strong hot solution of sulphate of magnesia, and a clear solution of gum arabic, mixed together, and put some upon the window, when, upon cooling, prismatic crystalline threads will be produced, resembling in appearance natural sprig crystals.

Remark.—If you wish a margin round the square of glass, you may take the corner of a wet napkin and wipe off as wide a one as you wish, which margin, at a distance, will appear like cut crystal glass.

ARTIFICIAL TUNBRIDGE WELLS WATER.

Take muriate of soda, five grains ; muriate of iron (tincture of steel), twenty drops ; and water, one and a half pint.

ESSENCE OF PEACH KERNELS.

Take a quantity of peach kernels, sliced, and pour upon them a sufficiency of spirits of wine or brandy to cover them. Macerate for a fortnight or more, and use as you want it ; or, take half a drachm of essential oil of almonds, and an ounce of brandy or spirit of wine.

STEER'S OPODELDOC.

Take eight pints each of rectified spirit and distilled water, four pounds of white hard soap, two ounces of oil of rosemary, eight ounces each of camphor and spirit of sal ammoniac.

DALBY'S CARMINATIVE.

Take two drachms of oil of caraway, one drachm of oil of peppermint, six ounces of spirit of wine, twelve ounces of carbonate of magnesia, two pounds and a quarter of syrup of poppies, four pints and a half of distilled water, three ounces of fœtid spirit of ammonia, and two drachms of tincture of opium.

DAFFY'S ELIXIR.

Take a pound and a half of small senna, twelve ounces of bruised jalap, eight ounces of bruised coriander seeds, six pounds of treacle, and six gallons of proof spirit.

Remark.—Digest with a moderate heat.

SYMPATHETIC INK.

Write with diluted sulphuric acid; and when you want the writing to appear, hold it to the fire till it becomes visible.

FURNITURE OIL.

Take a pint of linseed oil, half an ounce of gum arabic in powder, two drachms of alkanet root, and one ounce of shell lac varnish. Put all these into a bottle, and stand by the fire for a week, and strain.

Remark. — Add a sufficiency of elbow grease.

TO CLEAN BRASS OR COPPER.

Take an ounce of oxalic acid, six ounces of rotten stone, half an ounce of gum arabic, all in powder, one ounce of sweet oil, and a sufficiency of water to make a paste. Apply a small portion, and rub dry with a flannel or leather.

PLATE POWDER.

Take quicksilver with chalk, half an ounce ; and prepared chalk, two ounces : mix them. When used, add a small quantity of spirit of wine, and rub with chamois leather ; or, put

sulphate of iron into a large tobacco pipe, and place it in a fire for a quarter of an hour, mix with a small quantity of cretaceous powder. This powder should be used dry.

POLISH BLACKING.

Take two ounces of naptha, four ounces of gum arabic, a pint of black ink, a pound and a half of treacle, and a pint and a half of vinegar. Mixed together.

LIQUID BLISTER FOR HORSES.

Take two ounces of powdered cantharides, and one and a quarter pint of spirits of turpentine. Mix them. This blister is perhaps the best that can be used ; it leaves little or no disfigurement.

Remark.—Euphorbium and corrosive sublimate do more harm than good.

EFFERVESCING CHELTENHAM SALTS.

Take two drachms of Seidlitz salt, and one grain of tartrate of iron, very highly exsiccated, to which add twenty-five grains of highly dried tartaric acid. Put one or more teaspoonfuls into a tumbler, and pour upon it water, as much as you please, having previously increased the temperature by a tablespoonful or more of hot water.

CHIO TURPENTINE.

Take eight pounds of yellow resin, one pound and a half of gum elemi, and one pound and a half of oil of turpentine. Melt, and strain.

ALCOHOL.

Take three gallons of rectified spirit, and three pounds of salt of tartar; make these quite hot, and digest without heat.

COMMON CAUSTIC.

Take four pounds of the lixivium of soap, and boil to one pound, and add whilst hot as much quick lime as will form a proper consistence.

SYDENHAM'S LIQUID OPIATE.

Take four ounces and a half of crude opium, cut small, four ounces each of cinnamon and bruised cloves, five pints and a half of rectified spirit, two pints and a half of water, and three gallons of white wine. Digest a month without heat.

AROMATIC CRYSTALLINE SALT OF
AROMATIC VINEGAR.

Take small crystals of sulphate of potash, and pour a very small quantity of highly pungent and aromatic vinegar upon them, put in a bottle with a very wide mouth and glass stopper.

Remark.—There is a considerable trade done in this article. It is generally supposed the salt is deliquescent, and wholly composed of aromatic vinegar; a little reflection, however, would soon dispel such delusion.

TO CURE THE THRUSH IN HORSES' FEET.

Take sulphate of copper and sulphate of iron, of each two ounces; sulphate of zinc, powdered alum, honey, and vinegar, of each four ounces; nitric and sulphuric acid, of each half an ounce. Mix and boil together half an hour.

Remark.—*Infallible.*

PORTABLE LEMONADE.

(*Effervescing.*)

Take two hundred and forty grains of carbonate of soda, thirty-six drachms of powdered refined sugar, and fifteen drops of

essence of lemon, all rubbed together, and divided into twelve papers (blue).

Six drachms of tartaric acid in twelve papers (white).

Remark.—Make a solution of the powder in blue paper first, in a tumbler of cold spring water, then add the acid in the white paper, and stir briskly to produce more violent effervescence.

ETCHING ON STEEL OR IRON.

Take sulphate of copper, sulphate of alum, and muriate of soda, of each two drachms; and strong acetic acid, one and a half ounce, mixed together.

Remark.—First smear the part intended to be etched with yellow soap, and write with a quill pen without a *split*.

SIR H. DAVY'S CORN SOLVENT.

Take two ounces of subcarbonate of potash, and one ounce of salt of sorrel, in powder. Mix well together. Lay a pinch on the corn or wart four or five successive nights, binding on with rag.

FIRE AND WATERPROOF CEMENT.

Boil one pound of flint glass in soft water half an hour ; when cold, powder it in an iron mortar ; add to it four ounces of carbonate of ammonia, four ounces of quicksilver, and two ounces of borax, all rubbed very fine, and then sifted. Well bottle it, and when used, mix with a little water into a stiff paste. Let it stand eighteen hours, when it will be proof against fire and water.

BLACK REVIVER.

Take logwood, and coarsely powdered Aleppo galls, of each two ounces ; gum arabic and green copperas, of each an ounce. Boil the logwood, galls, and gum arabic in two pints of water till reduced to one pint, then add the copperas (after the boiling).

Remark.—Before using the reviver, well brush the article free from dust ; then take a very soft hat brush, and apply a little upon the garment, and as it dries keep brushing with a clothes brush.

TO MAKE TOOTH PASTE.

Take a pound each of prepared red coral, orris powder, and powdered cuttle fish ; half a pound each of powder of gum mastic, supertartrate of potash, and burnt alum ; four ounces of finely powdered cochineal ; one drachm of oil of cloves, and four pounds of honey. To be well incorporated and stirred every day for a week, when it may be put up in pots.

TO MAKE CONDENSED
GINGER POWDER FOR GINGER BEER.

Take one pound of the finest refined sugar in coarse powder, thirteen drachms of highly exsiccated carbonate of soda, two drachms and four grains of the finest Jamaica ginger in powder, and thirteen drachms of highly exsiccated tartaric acid.

Remark.—The above quantity is sufficient for thirty-two tumbler glasses. It should be kept in a perfectly dry wide-mouthed bottle, and tightly corked. If the acid and the alkali are not fully deprived of their water of crystallization by exsiccation, spontaneous effervescence will ensue, and the powder become spoiled—therefore great caution is necessary in purchasing the articles.

REMEDY FOR THE GOUT.

Take five grains each of powder of colchicum root and cayenne pepper, and three grains of the blue pill; mix, and divide into three pills to be taken at any time, and as often as required.

GREEN BASILICON OINTMENT.

Take one pound and three quarters of yellow wax, eight ounces of olive oil, and two ounces of powdered verdigris.

ESSENCE OF AMBRAYGRISIA.

Take bruised ambraygris, two ounces; salt of tartar, two ounces; alcohol, four pounds. Macerate with a gentle heat.

LENITIVE ELECTUARY.

Take eight pounds of powder of senna, forty pounds of figs, fourteen pounds of tamarinds, twenty-five pounds of prunes, eight pounds of coriander seeds, eight pounds of licorice powder, and forty-six pounds of moist sugar.

Remark.—Pulverize the senna and coriander seeds together, and sift through a sieve, the other articles to be boiled down to a thin pulp, then rub it through a sieve, and add to it the sugar previously made into a thick syrup, by little and little at a time.

REMEDY FOR RHEUMATIC GOUT AND
RHEUMATISM.

Take twenty grains of veratine, one ounce of lard, and thirty drops of (Bateman's) *opii guttæ fermentatæ*. Mix them well together, and rub the parts affected twice a-day.

BLUE FLAME.

Take seven ounces of nitrate of potash, two ounces of powder of crude antimony, one ounce of sulphur vivum, half an ounce of gunpowder, three drachms of king's yellow, and one drachm of oil of lavender, mixed together.

DR. GREGORY'S POWDER.

Take equal parts of powder of Turkey rhubarb, calcined magnesia, and powdered Jamaica ginger, mixed well together.

Remark.—A teaspoonful or two in a little water is a beneficial remedy for indigestion and flatulence.

ALKALINE ABSORBENT.

Take four parts of lime water, and one part of liquor of potash. Mix them, and take a teaspoonful in a little broth. A very effectual remedy for indigestion and heartburn.

CORDIAL BALL.

The best cordial balls are made as follow :
—Take one ounce each of ground pimento and nitre, and make into a ball with treacle or honey.

FEVER BALLS.

Take four drachms of tartarized antimony, six ditto of powdered camphor, two ounces of licorice powder, nine ounces of powdered nitre, and a sufficiency of honey to form a mass. To be given in ounce balls.

RED SEALING WAX.

Take one pound of yellow resin, five ounces and a half of gum lac, five ounces and a half of Venice turpentine, and one ounce of vermilion, mixed together. Dissolve the resin, lac, and turpentine first, and stir in the vermilion.

AQUA BRYONIÆ COMPOSITA.

Take of bryony roots cut, half a pound ; of valerian root cut small, four ounces ; of pennyroyal, and of rue chopped, each half a pound ; of savin cut, one ounce ; of orange peel, two ounces ; of proof spirit, three gallons. Digest a fortnight, and draw over two and a half gallons.

Remark.—Cut and bruise the ingredients, and steep them in the spirit for a week ; then draw off two gallons and a half of liquor.

HUXHAM'S ESSENCE OF ANTIMONY

Take ten pounds and a half of prepared vitrified antimony, and three gallons of sherry wine. Digest and filter.

FŒTID VOLATILE SPIRIT.

Take two pounds and a half of pearlashes, two pounds of crude sal ammoniac, one pound of gum assafoetida bruised, and one gallon of rectified spirit of wine. Digest and draw over sixteen pounds.

HUXHAM'S ÆTHIOP'S ANTIMONY.

Take one pound and a half of pulverized crude antimony, two pounds of quicksilver, and one pound of sulphur. Rub these well altogether in a marble mortar.

CONTRAYERVA BALLS.

Take some compound powder of contrayerva and make into balls, with mucilage of gum ragacanth.

LIQUOR AMMONIA.

Take four pounds of crude sal ammoniac, six pounds of pearlashes, and three gallons of water. Draw over ten pounds.

SOLUTIONS.

The making of solutions is of every day occurrence in pharmacy. The apprentice will do well to consider the following observations :—The different menstrua employed are water, spirit of wine, oils, acids, and alkaline liquors. Water dissolves all salts, vegetable gums, and animal jellies. Of the first it dissolves only a determinate quantity, though more of one salt than another, and being thus saturated, leaves any additional quantity of the same salt untouched. Water likewise takes up, in minute division, by trituration, the vegetable gum resins, as ammoniacum and myrrh. This may be termed imperfect solution. Rectified spirit of wine is the menstruum of the essential oils, and

resins of vegetables ; of the pure distilled animal oils, and of soaps.

Oils dissolve vegetable resins and balsams, wax, animal fats, mineral bitumens, sulphur, and corrode certain metallic substances, particularly lead. The expressed oils are for most of the bodies more powerful menstrua than those obtained by distillation ; as the former are more capable of sustaining, without injury, a strong heat, which is in most cases necessary to enable them to act.

All acids dissolve alkaline salts, alkaline earths, and metallic substances. The different acids differ greatly in their action upon these last, one dissolving only some particular metals, and another, others.

Vegetable acids dissolve a considerable quantity of zinc, iron, copper, and tin, and extract so much from the metallic part of antimony, as to become powerfully emetic ; they likewise dissolve lead, if previously oxydized by fire, but more copiously if corroded by their steam.

Hydrochloric acid dissolves zinc, iron, and copper ; and though it scarcely acts on any

other metallic substance, in the common way of making solutions, may yet be *artfully* combined with them all.

Nitric or nitrous acid is the common menstruum of all metallic substances, except gold and the antimonial semi-metal, which are soluble only in a mixture of nitro-hydrochloric.

Sulphuric acid readily dissolves zinc, iron, and copper, and may be made to corrode, or imperfectly dissolve most of the other metals.

Alkaline lixivia dissolve oils, resins, and sulphur. Their power is materially increased by the addition of quicklime ; combined, they reduce the flesh, bones, and other solid parts of animals into gelatine.

SPIRIT OF SAL AMMONIAC.

Take two pounds and a quarter of pearl-ashes, one pound and a half of sal ammoniac, two pounds and a half of rectified spirit of wine, and two quarts of water. Draw over fifteen pounds.

OIL OF TARTAR.

Take twenty-eight pounds of pearlashes and dissolve in three gallons of cold water in an earthen pan, evaporate the clear solution until a pint weighs one pound and five ounces.

COLOURS FOR SHOW BOTTLES.

Dissolve nickle in nitric acid, and add ammonia to excess.

To make crimsons, pinks, and lilacs, add a small quantity of solution of nickle to a solution of cobalt in ammonia.

Blues and purples are made by varying the quantities of sulphate of copper, in the following liquid, viz. four ounces of the strongest liquor of ammonia to two gallons of water.

MAHOMED'S ELECTUARY.

Take one ounce of currants, half an ounce of powder of senna, half a drachm of powder of ginger, one drop of croton oil, and a sufficiency of syrup of roses.

Remark.—Take two teaspoonfuls every morning.

POWDER FOR CUTANEOUS DISEASES.

Take a drachm of calomel, ten drachms of compound chalk powder, and five drachms of carbonate of soda. Mix altogether, and take from five to ten grains twice a day.

PERSIAN CREAM.

Take eight grains of oxymuriate of mercury in powder, a pint of almond emulsion, two drachms of essence of almonds, twenty drops of essence of neroli, and one ounce of spirit of wine.

WHITE OILS.

Take four ounces of spirit of wine, twelve ounces of train oil, half a pint of oil of turpentine, twelve ounces each of rape and linseed oils, and half a pint of water of ammonia.

BLACK OILS.

Take spirit of turpentine, green oil, and animal oil, of each half a pound ; train oil, twelve ounces ; and four ounces each of spirit of wine and sulphuric acid.

ODONTALGIC PASTE.

Take each of prepared red coral, powder of Florentine orris, and powder of cuttle fish-bone, of each a pound ; powder of gum mastich, half a pound ; powder of cochineal, four ounces ; powder of cream of tartar and burnt alum, of each half a pound ; honey of

roses, four pounds ; and oil of cloves, one drachm. Mixed altogether.

Remark.—After having been made a week, and kept stirred every day during that time, put it up into pots for sale.

VERDIGRIS OR DIGESTIVE OINTMENT.

Take each of common oil and yellow resin in powder, twenty-two ounces ; yellow wax, eight ounces ; oil of turpentine, four ounces ; and two ounces of powdered verdigris, mixed together.

BROWN VARNISH.

Take each of gum juniper and gum shell lac, six ounces ; salt of tartar, half an ounce ; Venice turpentine, one ounce and a half ; and four pints of spirit of wine, mixed together.

WHITE VARNISH.

Take four ounces of gum mastich, half a pound of gum juniper, one ounce of Venice turpentine, and four pints of spirit of wine, mixed together.

TAMOO VARNISH.

Take two ounces of gum copal (very clear), and a pint of spirit of wine.

OXYMEL OF COLCHICUM.

Take half a pound of colchicum root sliced ; distilled vinegar, eight pints. Bruise the colchicum, and steep in the vinegar forty-eight hours ; strain, and add double the weight of honey, and boil to a proper consistence.

TONIC CANDY.

Put a quantity of clean filings of iron into a brass kettle suspended over a slow fire ; keep adding gradually twice their weight of refined sugar, and boil to the consistence of candy ; keep shaking the kettle in order to completely encrust the filings with sugar.

Remark.—As an agreeable tonic this form is desirable, but it is now become obsolete.

ESSENCE OF VERBENA.

Take half an ounce of oil of verbena, four ounces of spirit of wine, and forty drops of essence of vanilla. Macerate for a week, and filter.

DANDELION COFFEE.

Take three pounds of best Turkey coffee, one pound each of hard extract of dandelion and succory, reduced to coarse powder or ground.

Remark.—Under the above name, a new coffee is promulgated to the world, with the enticing character of possessing more than astonishing qualities, as a purifier and sweetener of the blood and juices ; and in order to exhaust the stock of every coffee dealer in the united kingdom, it is ordered to be drank morning, noon, and night.

SNOW'S ALTERATIVE PILLS.

Take two drachms of powder of socotrine aloes, one drachm each of powder of rhubarb and dried subcarbonate of soda, two scruples of calomel, and two drachms of Castile soap, with a sufficiency of decoction of aloes to form a mass, which is to be divided into ninety-six pills.

TOOTH POWDER.

Take a pound of prepared chalk, two ounces of powdered myrrh, four ounces of powdered bark, two ounces of burnt alum, two ounces of powder of Florentine orris, thirty drops of oil of cassiæ, and some rose pink to colour it. Sift through a fine sieve.

ÆTHIOP'S MINERAL.

The Pharmacopœia directs equal proportions of flowers of sulphur and purified quicksilver to be ground together in a stone mortar, till a complete uniting has taken place, or till it is converted into a protoxide. By the assistance of a little warmth, the action of the medicament is increased, and by melting the sulphur in an iron ladle, and adding the mercury, and keeping the mixture well stirred, a most complete union takes place. It has been argued that the increased heat afforded by the action of the fire injures the substances, and is consequently very objec-

tionable. In making factitious cinnabars, the same articles are exposed to the heat of an intense fire, and that without receiving any ill quality from its action. The certainty that the ingredients undergo greater change by being heated to union than by trituration in the usual way, is quite positive, and have much greater efficacy as a medicine.

COMPOUND CAMPHOR LINIMENT WITHOUT DISTILLATION.

Take camphor two ounces, a pint of spirit of wine, a drachm of oil of lavender, and six ounces of strongest liquor of ammonia.

CONFECTION OF DAMOCRATES.

Take true powder of aniseed, true powder of caraway seed, true powder of cummin seeds, true powder of tormentil, and true powder of gentian, of each two ounces and a half; four drachms of powder of opium, with a sufficiency of syrup of poppies. Mix well altogether.

FERMENTED SOLUTION OF CINCHONA.

Make an infusion of the same strength as decoction of bark, ordered in the Pharmacopœia. Throw in a handful of malt to every gallon ; let them stand macerating for two hours ; strain off, and add to it a piece of wheaten bread or a little yeast, and place it by the fire or in the sun. After the fermentation has ceased, bottle it for use, or keep it in stone jars. This preparation will keep good some time, and is an excellent substitute for decoction of bark, and will be more readily taken by a patient.

COMPOUND EXTRACT OF COLOCYNTH.

Take five pounds of colocynth well bruised, and boil for four hours, then strain and press. Add to the liquor, whilst hot, fourteen pounds of powder of hepatic aloes, boil slow until dissolved, then strain and set it aside to deposite ; reduce it to a soft extract and add six pounds of powdered scammony, pre-

viously well rubbed down with water into a smooth paste ; lastly, sift in three pounds of very finely powdered cardamom seeds, and add eight ounces of spirit of wine.

Remark.—The reason of giving this form, and many others, different to the Pharmacopœia is, that they are better preparations and much plainer to be understood. Very great objection exists to most of the compound extracts of colocynth from their tendency to become hard ; but if the form given here is strictly attended to, it will be found to possess less of that objection than any other formula extant.

DR. DUNCAN'S GOUT REMEDY.

Take eighteen ounces of bruised dried root of colchicum, six ounces of bruised ginger, six ounces of bruised pimento, six pints of spirit nitre, twelve ounces of carbonate of ammonia, one pint and a half of tincture of opium, three pints and a half of spirit of wine, and seven pints of pimento water.

Twelve drachms of the above, added to four ounces and a half of pimento water, and a drachm of laudanum, is directed to be divided into four doses, two of which are to be taken every day, night and morning.

COURT PLAISTER.

Make a strong tincture of benzoin in spirit of wine, to which add a weak solution of isinglass. Strain the silk upon a block roller and rub it over several times with the solution, till the pores of the silk are quite filled with the solution, which should be previously made moderately hot. When the plaister is become quite dry, which should take place in the most gradual way, it is then to be rubbed over with a solution of resin turpentine in tincture of benzoin.

*Gum Benzoin ℥ss; Sp^t of wine ℥iv, & the
Isinglass ℥i; water ℥ss. solve.
Resin turpentine ℥iv, Tincture of Benzoin ℥v.
Mix.*

SCOURING DROPS.

Take three drachms of æthereal spirit of turpentine, and five drachms of essence of lemon. Mix these and distil from a glass retort.

Remark.—This form for scouring drops approaches nearer to the scouring drops made by Smyth and Nephew, of New Bond-street, than any other formula ; however, their article is better than any I have hitherto seen used.

NITRATE OF SILVER

Stands at the head of mineral tonics, and must, ere long, make considerable advancement as an internal remedy in consumptive cases, either in the incipient or collapsed stages. The following is a good form of administering it :—

Take three grains of nitrate of silver, eight grains of powder of hippo, and twelve grains of blue pill, make it into a mass and divide into twelve pills ; one to be taken twice a

day. These pills may be continued a great length of time with impunity, with intervals of a week every third week, to prevent discolouration of the rete mucosum by constant continuance.

POUDRE SUBTIL.

(For removing Superfluous Hair.)

Under the above name, many pefumers in London vend to the public a composition composed of quicklime, sulphuret of arsenic and starch powder. The mode of using this depilatory has been recommended to be done in several different ways. Some direct it to be applied in the state of powder and bound on with rag; others in form of pomade. Whether or not the preparation is what it is represented to be, I know not; but I should suppose it capable of some effect, although Dr. Paris, in his Pharmacologia, states that such a composition is incapable of fulfilling the intention for which it is so confidently vended.

POMADE DYE.

Take four drachms of nitrate of silver dissolved in an ounce of nitric acid, to which add two ounces of iron filings. Let them stand together for five or six hours; add to it about half an ounce of distilled water; pour off the fluid and mix with lard, to which put one ounce of oatmeal finely powdered.

This pomade is used for dyeing hair for wigs.

ESSENTIAL SALT OF SORREL.

When this salt can be procured, made from the acetosæ, it forms a most useful ingredient in *Materia Medica*, and a very valuable one for domestic purposes. We find the following form in Stahl:—Take the juice of acetosæ decanted from the feces, and evaporate it till reduced to one-third, then strain through a flannel bag, and exhale again till a pellicle concretes upon the surface. Put the liquor into a glass vessel, and a little oil of olives being poured upon the top, set it by

in a cellar till plenty of crystals appear formed ; these are to be gently washed with water, and afterwards dried for use.

The waters of the acetosæ, which are in vain endeavoured to be drawn over by distillation, may be obtained by dissolving a suitable quantity of their essential salt in common water.

Some pharmaceutic writers direct the plants to be gathered early in the morning ; but this is of very little moment. In order to make the subject yield its juice readily, it should be chopped to pieces, and well bruised in a marble mortar, before it is put into the press ; the magma which remains in the bag, still containing no inconsiderable quantity of saline matter, may be advantageously boiled in water, and the decoction added to the expressed juice. The whole may be afterwards depurated together, either by the method above directed, or by running the liquor several times through a linen cloth.

The evaporation should be performed either in shallow glass basins, or in such earthen

ones as are of a compact close texture, such as those usually known as stone ware. The common earthen vessels are subject to have their glazing corroded, and are so extremely porous as readily to imbibe and retain a good quantity of the liquor; metallic vessels are particularly apt to be corroded by these acid kind of juices.

The directions for the time of discontinuing the second evaporation, are not so easily observed as one could wish. These juices are so viscid, and contain so large a quantity of extraneous matter, that it is a very difficult thing to produce a pure saline pellicle, or incrustation upon the surface.

FREEZING POWDERS.

Take four pounds of sulphate of soda, two pounds and a half each of muriate of ammonia and nitrate of potash ; and when required to be used, add double the weight of all the ingredients of water :

or,

Take equal parts of muriate of ammonia and nitrate of potash ; and when required for use, add more than double the weight of water :

or,

Nitrate of ammonia and water in equal proportions :

or,

Carbonate of soda and nitrate of ammonia equal parts, and one equivalent of water.

Vide Ferguson and Walker.

TAMAO VARNISH.

Under this name is vended a beautiful transparent varnish, the recipe for which is to be found in Ure's Dictionary of Chemistry, under the head "Copal." Gum copal is ordered to be dissolved by digestion in linseed oil, rendered drying by quick lime, with a heat very little less than sufficient to boil or decompose the oil. This solution, diluted with oil of turpentine, forms a beautiful transparent varnish; which, when properly applied, and slowly dried, is very hard and very durable. This varnish is applied to snuff-boxes, snuffer-trays, tea-boards, and all similar utensils. It is stated to preserve and give lustre to paintings, and greatly to restore the decayed colours of old pictures, by filling up the cracks, and rendering the surfaces capable of reflecting light more uniformly. A very common way of making picture varnish, is by a solution of transparent copal in oil of spiked lavender which has undergone several distillations.

TRANSPARENT PICTURE VARNISH.

Take an ounce of mastich drops, to which put half a pint of oil of turpentine (very clear and bright).

Remark. — This varnish is peculiarly applicable to all new paintings, not only from its being transparent, but unlike the spirit of wine varnishes, it is not affected so much by heat, nor liable to crack.

MACGELP

Is prepared by mixing equal parts of turpentine, mastich varnish, and linseed oil.

Remark. — Many artists now-a-days are very fond of painting in macgelp; whether it be an error in judgment or not, I cannot say, but if they continue the use of it, I will be bound to say, that in a very few years not a perfect painting will be found. Look at the cruelty practised by this innovation upon common sense. Suppose an artist employed to paint the characteristic likeness of some

relation or friend to whom you are fondly attached, as a memento in after years ; you flatter yourself you have got that which you can hand down to succeeding generations as a sacred gem, upon which all after you may delight to look ; but how delusive will be the hope by this “ march-of-intellect ” mode of painting — this curse of improvement. Increase but the temperature of a room a little beyond the ordinary heat of summer, and you will have sad cause to exclaim with the poet : “ Look on this picture, then on that ! ” — for they will be no longer the silent representatives of form and features, but a confused mass of undistinguishable character.

Note.—The composition will be separated by the temperature of a highly-heated room, and will run.

FREEMAN'S BATHING SPIRITS.

Take opodeldoc, one ounce ; compound liniment of camphor, two drachms ; tincture of opium, twenty drops ; and tincture of senna sufficient to colour it. A very good external application for chilblains, bruises, &c.

TAYLOR'S REMEDY FOR DEAFNESS.

Take two drachms of almond oil, half a drachm of tincture of castor, and six drops of compound spirit of lavender.

RUSPINI'S TINCTURE.

Take Florentine orris root bruised and rhatany root bruised, of each eight ounces ; cloves in powder, one ounce ; rectified spirit of wine, two pints ; musk, two grains.

COLLEY'S DEPILATORY.

Dr. Paris says it is a compound of quicklime and sulphuret of potash ; but did any body ever smell the emitting fumes of this vilest of all stinks, and then say Colley's Depilatory is prepared by the compound ?

PECTORAL BALSAM OF HONEY.

Take tincture of benzoin, one ounce ; tincture of tolu, half an ounce ; tincture of opium, one drachm. Mix them.

REMEDY FOR HOOPING COUGH, OR
ROCHES.

Take oil of amber, three drachms ; oil of cloves, one drachm ; oil of olives, one ounce. Mix them for an embrocation.

SPILSBURY'S ANTISCORBUTIC DROPS.

Dr. Paris gives the following form for these drops: corrosive sublimate two ounces, prepared sulphuret of antimony one drachm, gentian root and orange peel equal parts two drachms, shavings of red sanders one drachm, made with a pint of proof spirits into a tincture, which is to be digested and strained.

Remark.—Upon reading the above formula for preparing Spilsbury's drops, Dr. Hancock went to the proprietor's and purchased a bottle, which he subjected to analysis; the result of which was, that the preparation contained the presence of mercury in no shape, and was totally of a different character altogether from Dr. Paris's formula. Now as Dr. Hancock very justly observes, the danger of promulgating the analysis of a nostrum (which I dare say Dr. Paris obtained of some good-natured druggist, who in the plenitude of his wisdom dogmatically vouched for the correctness of the analysis) is far more dangerous than the nostrum itself (be it objec-

tionable), for in this instance, had any unfortunate being been induced to have sent to a druggist to have prepared this correct result of analysis, it is more than probable but that unhappy creature would, long before he had taken the first bottle, be made conscious that he would have no occasion for a second ; but that “ his days were numbered.”

DE VELVO'S SYRUP

Is supposed to be a decoction of dulcamara, licorice, dockwork and angelica, suffering the dregs after coction to subside, pouring off the supernatant liquor, to which add sugar, and boil to the consistence of syrup.

OPODELDOC.

In preparing opodeldoc, according to the Pharmacopœia, it is impossible to obtain a solution of the hard soap, from the fact of rosemary spirit being ordered as the menstruum; the very thing of all others to prevent solution.

HANNAY'S LOTION, OR PREVENTIVE
WASH,

Is prepared by adding two ounces of solution of potash to six ounces of distilled water.

Remark.—There is no utility in the use of the solution of potash as a preventive remedy. If any advantage is to be found as an antidote, it must be by immersing the glands into some such lotion as the following :—

Take ten grains of corrosive sublimate, half an ounce of spirit of wine, and a pint of rose water. I am acquainted with some practitioners who assert its utility any time within eight and forty hours after the time of liability of contracting disease.

BLACK DROP.

Dr. Armstrong's formula for preparing black drop is as follows :—Take half a pound of opium sliced, three pints of good verjuice, one ounce and a half of nutmegs, and half an ounce of saffron. Boil them to a proper thickness, then add a quarter of a pound of sugar, and two spoonfuls of yeast. Set the whole in a warm place near the fire, for six or eight weeks, then place it in the open air until it becomes a syrup; lastly, decant, filter, and bottle it up, adding a little more sugar to each bottle.

Remark.—It would be very much better, instead of yeast, to employ a small piece of wheaten bread, and instead of three pints of verjuice, ferment it in a pint of water by the side of the fire, or in the sun, adding the acid afterwards as it greatly prevents it proper fermentation. Dr. Paris states, an acetate of morphia is formed in this preparation, which is more active, and less distressing in its effects than any other *narcotic* combination. The fact is, if it be so, that in acetate of

morphia, the narcotic principle is much more predominant than the sedative one, a consequence producing more distress, headache, and stupor.

PLUMMER'S PILL

Should be at all times converted into a mass by means of rectified spirit, as it is kept more ductile and more readily converted into pills, and more soluble in the stomach.

SYRUP OF HOREHOUND.

Take candied horehound, four pounds ; lump sugar, four pounds ; gentian root, sliced, two ounces ; and water, six pints. Boil, till reduced to the consistence of a syrup, taking off the scum whilst hot.

RECIPE FOR CLEANING METALS.

Mix half a pint of neat's foot oil, and half a gallon of spirit of turpentine ; wet a woollen rag with some of this, and put on it a little powder, made thus :—Take two ounces of green copperas and half an ounce of subcarbonate of potash, burn these together in a clay vessel for a quarter of an hour in the fire, when it should be reduced to an impalpable powder for use. Having put the powder in the oiled part of the rag, well rub the metal ; wipe off with a soft cloth, and polish with a dry leather and some more powder.

N. B.—If steel be very rusty, use a little levigated pumice stone, with the oil on a separate rag, first.

RECIPE FOR CLEANING GLASS.

Mix a pound of the powder directed in the preceding recipe, and boil it in a quart of water, and when cold, sponge the glass downwards with it, and polish with two soft cloths.

RECIPE FOR TAKING STAINS OUT OF MAHOGANY.

Mix six ounces of spirit of salt and half an ounce of powdered salt of lemons. Drop a little of this mixture on the stains, and rub well with a cork until they disappear, then wash off with cold water.

RECIPE FOR CLEANING MAHOGANY.

Take a pint of the furniture oil (according to the formula in this book), mix with it half a pint of spirit of turpentine and half a pint of vinegar ; wet a woollen rag with the liquid, and rub the wood the way of the grain, then polish with a piece of flannel and soft cloth.

TOOTH POWDER.

Take a pound of prepared chalk, two ounces of powder of myrrh, two ounces of powder of orris, one ounce of burnt alum in fine powder, a little rose pink, and a few drops of oil of cloves, or oil of cinnamon.

PILE OINTMENT.

Take one pound and a quarter of spermaceti ointment, two drachms of powder of opium, four ounces of powder of galls, two drachms of Goulard's extract, and four drachms of sugar of lead. Mixed together.

AMMONIATED PLAISTER.

Take half a pound of sal ammoniac in powder, one ounce of hard soap, and two pounds of lithrage plaister.

FOWLER'S MINERAL SOLUTION.

Take sixty-four grains each of white arsenic and prepared kali ; compound spirit of lavender, half an ounce ; and a sufficient quantity of distilled water to make a pint. Boil the arsenic and kali together in the water till dissolved, then add the spirit of lavender.

FACTITIOUS STRAINED STORAX.

Take a pound of gum storax, six pounds of gum benzoin, one pound of balsam of Peru, two pounds of balsam of tolu, and two gallons of rectified spirit. Digest a week, and drain off into a bath.

HORSE WORM POWDERS

Take two pounds of gentian powder, two pounds of powder of cape aloes, seven ounces and a half of calomel, and one ounce of oil of wormwood. Mix, and give in doses of one ounce.

GREASE POWDER.

Take a pound of fine powdered alum, four ounces of powdered blue vitriol, and four ounces of levigated Armenian bole. Mixed well together.

STIMULATING OINTMENT FOR HORSES.

Take a pound and a half of powder of cantharides, eight ounces of powdered corrosive sublimate, four ounces of powdered sal ammoniac, one pound of powder of euphorbium, and twelve pounds of lard.

DIURETIC BALLS.

Take seven pounds of powder of resin, eighteen pounds of common turpentine, one and three quarters of a pound of powder of guaiacum, and six drachms of tartarized antimony. Dose, six drachms.

POWELL'S DIURETIC DROPS.

Take eight ounces of oil of juniper-berries, and two pints of alcohol. Mix, and give doses of a teaspoonful in barley-water twice a-day.

FACTITIOUS BURNT SPONGE.

Take burnt sponge, four ounces; ivory black, one pound; and salt, three ounces.

PHYSIC BALLS.

Take three drachms of Barbadoes aloes, one drachm each of calomel and Venice soap, half a drachm of ginger, and a sufficiency of syrup of buckthorn.

CONDITION BALLS.

Take fenugric in powder, half an ounce; gentian in powder, one drachm; caraway seeds in powder, two drachms; crocus of antimony in powder, half an ounce. Mix into a ball with honey.

CORDIAL BALLS.

Take aniseeds in powder, caraway seeds in powder, of each two drachms; grains of paradise, one drachm; nitre half an ounce; oil of aniseed, five drops; honey, q. s.

DIURETIC BALLS.

Take one pound of resin, half a pound of yellow soap, half a pound of nitre, two ounces of garlic, half a pound of licorice powder, and a sufficiency of spirit of turpentine.

ALTERATIVE BALLS.

Take emetic tartar, two drachms ; powdered ginger, two drachms ; Castile soap, one drachm ; oil of caraways, ten drops ; decoction of aloes, Q. s.

ASTRINGENT BALLS.

Take powdered opium, half a drachm ; powdered ginger and cinnamon, of each two drachms ; oatmeal, two drachms ; treacle, Q. s.

COUGH BALLS.

Take assafœtida, one drachm ; camphor, half a drachm ; powdered squills, one drachm ; soap, three ounces ; oil of aniseed, twenty drops ; honey, Q. s.

OINTMENT FOR BROKEN-KNEED
HORSES.

Take four ounces of mercurial ointment, and one ounce of ivory black. Mixed together :

or,

Hogslard, four ounces ; levigated gunpowder, one ounce.

Remark.—The above ointments are applicable for healing sores, from the rubbing of the collar or otherwise.

COLIC BALLS.

Take opium, two scruples ; camphor, one drachm ; ginger and long pepper in powder, of each two drachms ; Castile soap, one drachm ; treacle, q. s.

FARCY BALLS.

Take calomel, one drachm ; powder of opium, ten grains ; myrrh, one drachm ; syrup, q. s. One every day for four or five days.

MANGE BALLS.

Perhaps the best mode of treating the mange is by administering physic balls in which is a considerable portion of subcarbonate of soda. The animal should also be sprinkled over with sulphur, and clothed up in a warm stable. The following will be very useful physic to employ, and may be repeated twice a-week for three weeks : — Take aloes, six drachms ; prepared natron, three drachms ; calomel, ten grains ; Castile soap, two drachms ; olive oil, q. s.

ALTERATIVE POWDERS.

Take caraway seeds, cummin seeds, coriander seeds, fenugric and antimony, of each in powder, two ounces ; nitre, one ounce ; Jamaica and cayenne peppers, of each half an ounce. Mixed well together, and divide into sixteen doses, one to be given every day.

INTERNAL REMEDY FOR HOOPING
COUGH.

Pour an ounce of nitric acid upon an ounce of oil of amber, which will coagulate ; dissolve it in two ounces of water, and give in doses of from ten to twenty drops.

GREEN BASILICON.

Take one pound and three quarters of yellow wax, eight ounces of olive oil, and two ounces of powdered verdigris. Mix them.

GOULARD.

Take seventy pounds of lithrage and thirty-two gallons of vinegar, and boil four hours.

AROMATIC STOMACH MIXTURE.

Take one ounce and a half of species for chalk mixture, one ounce and a half of aromatic confection, one ounce of tincture of ginger, six drachms of tincture of opium, half an ounce of spirit of wine, and a pint and half each of distilled and cinnamon water.

PETIT LAIT.

Solutions of the essential salts of all acid, austere and astringent plants, used in small quantities, are extremely useful for producing whey expeditiously, and without trouble.

TO PURIFY SOAP FOR MEDICAL
PURPOSES.

Take a pound of dry hard Spanish soap, or any other kind of oil soap, slice it and put it into a clean pewter vessel, and pour upon it two gallons of rectified spirit of wine. Place the vessel in a water bath, and apply such a degree of heat as will make the spirit boil, when the soap will become dissolved. Let the vessel stand close covered in a warm place, till the liquor has become perfectly clear; if any impure matter remain upon the surface, scum it off carefully, then decant the clear liquor from the dregs, and distil off from it all the spirit that will arise in the heat of a water-bath. Expose the remainder to a dry air for a few days, and it will become a white, opaque, and friable mass.

Remark.—Soap thus purified has no smell, and free from all alkaline impurity, and is well-fitted for medicinal purposes, and for softening the skin.

POTEST SUCCINE.

Take two ounces of volatile sal ammoniac, two ounces of oil of amber, and two pints and a half of alcohol. Rub the salt of ammonia and oil of amber well in a wedgwood mortar, and add to it the spirit of wine, and digest in a gentle heat.

SYRUP OF CLOVES.

To cloves cut, add double their weight of boiling water, and when cold, press, and add to the clear liquor double the weight of refined sugar.

JELLY, OR QUINCE MARMALADE.

Take three pints of clear quince juice, and a pound of white sugar. Boil these together. This is more properly syrup of an open and cooling character.

SMITHSON'S ESSENCE OF SCURVY
GRASS.

Take the juices of scurvy grass and oranges, of each a pint and a half ; refined sugar, ten ounces ; and half a pint of compound horse-radish water. Mix the two first ingredients with the sugar, and clear the liquor, then add the compound spirit of horse-radish.

ODORIFEROUS POMATUM.

Take olive oil and prepared suet, of each four ounces ; put the oil and suet into an earthen jar placed in a water-bath. Stir them together with a clean knife or piece of wood, till they are thoroughly incorporated ; then remove the vessel out of the hot water, and when the oil and suet begin to thicken, drop in about half an ounce of essential oil of the following kinds, in these proportions :—viz. oil of cloves, sixty drops ; neroli, twenty drops ; lavender, one drachm ; bergamotte, one and a half drachm ; essence of musk,

forty drops, or a mixture of any other essences considered preferable; and if a drachm of essence of ambergris be added, it will add considerably to enrich the essence. Let the whole be constantly stirred, so that they may be minutely mixed; and as soon as they are considered sufficiently so, place the jar in a vessel of cold water, so that none of the essential particles may be dissipated. This pomatum may be coloured with painter's green, viz. sap green ground in a little olive oil; or carmine; or prussiate of potash.

LOCATELLI'S BALSAM.

Take a pound of yellow wax; a pint and a half of olive oil; a pound and a half of Venice turpentine; balsam of Peru, two ounces; and dragons' blood, one ounce. Melt the wax in the oil over a gentle fire, then add the turpentine, and having taken them from the fire, mix in the balsam of Peru and dragons'

blood, keeping them constantly stirred till quite cold.

Remark.—The colouring matter is generally produced from red sanders, but the colour is not so good.

RUSPINI'S STYPTIC.

Take calcined green vitriol, two drachms ; brandy, one pint. Mix them together, that the spirit may become darkened.

Remark.—This styptic is recommended both for internal and external hæmorrhages. It is certainly a very valuable styptic for external bleedings, and I should think a useful remedy in congestion of the lungs, or the rupture of any vessel, though perhaps vitriolic acid in aqueous vehicle is more proper, but that is calculated to do considerable injury to the teeth, unless great caution is used ; such as rinsing the mouth and wiping the teeth with a cloth after every dose.

SYDENHAM'S LIQUID LAUDANUM

Take opium, two ounces ; cinnamon, cloves, and saffron, of each a drachm ; Canary wine, a pint.

Remark. — The aromatics here directed with the opium, are intended to disguise the taste and odour of the opium, a desideratum certainly, but beyond that, they in no way tend to alleviate or curb the mischievous quality of the opiate.

DECOCTION OF QUINCE SEEDS.

Take of quince seeds, a draehm ; water, six ounces, by measure. Boil them over a slow fire, and pass it through a linen cloth.

HARTSHORN BLANCMANGE.

Take of hartshorn shavings, half a pound ; water, one quart ; white sugar candy, three ounces ; sweet wine, one ounce. Boil the

hartshorn in the water in not too strong a heat till reduced to one half, strain the liquor, add to it the other ingredients, and boil the whole over a gentle fire to a proper consistence.

SOLUTION OF ACETATE OF MORPHIA

Should be made of the same strength as tincture of opium, in order to guide the practitioner in his prescriptions. As there is no recognized formula, the strength of the solutions met with in the different shops vary from eight to twenty grains of the acetate to an ounce of menstruum. This variation ought not to exist, and an acknowledged form should be established. Six grains to the ounce is the strength of tincture of opium.

SOLUTION OF SULPHATE OF MORPHIA.

Take eight grains of sulphate of morphia, one drachm of dilute sulphuric acid, and seven drachms of distilled water.

SOLUTION OF MURIATE OF MORPHIA.

Take eight grains of muriate of morphia, thirty drops of muriatic acid, and one ounce of distilled water.

Remark.—These digested preparations of opium are not to be compared, in point of medical usefulness, to the fermented formula. The Lancaster black drop would be a much more useful sedative, if prepared by spontaneous, rather than artificial fermentation. The *opii guttæ fermentatæ*, spoken of in the last page of this book, is perhaps the most powerful and valuable sedative we know of; it not unfrequently happens, that in great extremities where the patient is distressed by taking morphia, *liq. opii sedativus*, &c., that the fermented opiate drops answer the best of purposes, and where their flavour is disguised, it is quite impossible beyond producing the desired effect, to know that opium has been employed.

PUBLICANS' BITTERS.

Take equal parts of gentian root, seville orange peel, hops, and lesser centaury (say one ounce), cocculus indicus, four ounces; angelica root (dried), two ounces. These may be either steeped in brandy or spirit of wine. In weakness of stomach, loss of appetite, indigestion, and the like disorders proceeding from a too free use of spirituous liquors, causing a laxity of the solids, these bitters do some considerable service.

GODFREY'S SMELLING SALTS.

These salts possess the highest degree of pungency. An article equally so may be prepared either by re-sublimation of carbonate of ammonia with pearlash or subcarbonate of potash, and adding a sufficiency of spirit of wine to make them moist; or, extemporaneously, by pounding muriate of ammonia with the subcarbonate or pearlash, and adding alcoholic solution of ammonia.

TO FILL COMMON PUNGENT SALT BOTTLES.

Coat the inside of the bottles with a thin cement of plaster of Paris, and fill with equal parts of sulphate of ammonia and quicklime ; or with a compound of carbonate of ammonia, subcarbonate of potash, and a little alcohol.

ROUGE POWDER FOR THE FACE.

Take half a pound of levigated French chalk, and two ounces of finest carmine.

ROUGE FOR CLEANING PLATE.

Take equal parts of precipitated subcarbonate of iron, and prepared chalk.

SCENTED POWDERS FOR DRAWERS.

Take a pound of fresh Florentine orris powder, twelve grains of musk, one drachm of essence each of ambergris and musk, and two drachms of oil of bergamotte. Mixed together. A little salt of tartar, shaken over some rose leaves and added, would be a good addition.

PEARL POWDER.

Take three ounces of the lightest and best coloured flake white, and half an ounce of powder of French chalk :

or,

Take some permanent white, and some levigated French chalk :

or,

Washed bismuth and French chalk.

Remark.—I should recommend the middle formula for pearl powder ; the other being preparations of lead and bismuth, are liable to be acted upon by sulphuretted hydrogen gas, or even by the heat of a crowded assembly.

VEGETABLE ROUGE IN POTS.

Take rouge powder as directed for the face, and make into a pomade with clarified lard.

SCENTED HAIR POWDERS.

Take three parts of starch powder, one part of magnesia, two of finest English arrow root, and one part of orris powder, and mix them. May be scented with essential oils or essences, but dry perfumes are best.

Remark.—They should always be sifted after they are prepared, as they are lightened thereby. Violet powder has merely the essence of orris root added, or more of the powder; Mareschalle finely pulverized cloves, and a minute quantity of musk. Orange-scented powder is made by the addition of fresh powder of orange peas.

RED INK.

Take four ounces of ground brazil, and three pints of vinegar. Boil till reduced to a pint and half, and add three ounces of powdered rock alum :

or,

Tincture of red sanders, with a solution of rock alum.

AROMATIC SPIRIT OF VINEGAR.

Take the flowers of aromatic and perfumed shrubs, and digest them in strong acetous acid, and add spirit of wine in the proportion of four ounces to a pound of acid, and distil.

AROMATIC VINEGAR.

Take the dried tops of rosemary, the dried leaves of sage, the dried flowers of lavender, of each four ounces ; cloves, half an ounce ; camphor, three drachms ; distilled vinegar, six pints. Macerate for fourteen days with heat and filter.

AMMONIATED ALCOHOL.

Take a pound of lime, with half its weight of water, and when the action has ceased, add ten ounces of sal ammoniac. Digest in thirty ounces of spirit of wine, and abstract the clear liquor; or, what is preferable, draw over by distillation as much clear liquor as you can.

PONDEROUS MAGNESIA,

Either carbonate or burnt, is made by washing it with distilled water, then compressed and dried.

STYPTIC WATER.

Dissolve twenty grains of sulphate of copper, one drachm of sulphate of alum, in four ounces of distilled water, and add twenty drops of sulphuric acid. Useful application for fresh wounds to stop hæmorrhage.

ARTIFICIAL MUSK,

According to Gray, is made of one part of oil of amber and four parts of nitric acid ; digest ; a dark matter is deposited, which may be dissolved in water. As a remedy for hooping cough, it is perhaps the best.

HARD POMATUM.

Prepared suet, two pounds, strained ; white wax, six ounces ; scented with any kind of essential oil.

SOFT POMATUM.

Take a pound of hard pomatum, six ounces of oil of almonds, and some perfume.

FURNITURE PASTE.

(Hard.)

Take a pound of white wax, one ounce of black resin, one ounce of alkanet root, and ten ounces of linseed oil. Strain for use after having stood a fortnight.

WHITE COPPER, OR ENGLISH SILVER.

Make into a paste equal parts of deut oxide of arsnic, oil, and charcoal. Put this mixture into a vessel composed of several separated layers of granulated copper, and keep the vessel open ; apply heat very gentle at first, which should be gradually increased till the mixture is melted, then strain it.

CHINESE WHITE COPPER.

Take copper, four hundred parts ; zinc, two hundred and fifty-four do. ; nickel, three hundred and sixteen do. ; iron, twenty-six do.

VIOLET COPPER.

Take copper three parts, regulus of antimony one part. The composition is brittle, and capable of a very fine polish, and of a beautiful violet colour.

ALTERATIVE DOG MEDICINE FOR
DISTEMPER.

Take four ounces of nitre, four ounces of sulphur, and a sufficiency of linseed oil to form a mass, which divide into two dozen balls. Give a ball twice a day, and plenty of clean straw to lie upon.

MARSHALL'S GUTTÆ VEGETABILIS.

Take two grains of lunar caustic to every ounce of distilled water, in which snails have been boiled. Drop one drop into the eye every night at bed time.

TRAVERS'S INFERNAL DROPS

Are the same as the guttæ vegetabilis of Marshall, contenting himself, however, with the mere solution of nitrate of silver in distilled water, leaving the veritable entomologistian oculist the benefit of the extra ingredient. The directions as to use, the same,

ITCH OINTMENT.

Take two drachms of white precipitate to two ounces of lard. Every night at bed time take a third of the ointment, and rub well in all parts of the body and extremities.

ITCH LOTION.

Take a saturated solution of chloride of lime.

Remark.—Both the lotion and the ointment are free from smell, though equally as efficacious as sulphur.

CORN PLAISTER.

Take ammoniacal plaister with mercury, three parts; resin plaister with opium, one part. Mix them together, and spread upon leather or coated linen.

ROSE PINK.

Whiting washed in a strong decoction of Brazil wood and Roman alum.

TO CLEAN PLATE.

Take an ounce each of cream of tartar, muriate of soda, and alum, and boil in a gallon or more of water. After the plate is taken out and rubbed dry, it puts on a beautiful silvery whiteness, giving the appearance of new silver.

BRITISH OIL.

Take spirits of tar four ounces, spirit of rosemary one ounce, mixed together.

BLEACHING LIQUID.

A great deal of solution of chloride of lime is vended for bleaching liquid, by druggists, from being told it is really the same article. Bleaching liquid is a solution of subcarbonate of potash impregnated with the vapour arising from the combination of muriate of soda, sulphuric acid, manganese, and water.

HARROWGATE WATER.

Dissolve a few grains of sulphuret of potash in water, and you have no occasion to go to Harrowgate to drink the waters.

FRENCH MILK OF ROSES.

About four drachms of extract of lead to a pint and a half of distilled rose water.

TO MAKE ELECTRIC CUSHIONS.

Melt four parts of zinc, and two of pewter, and pour them into a cold vessel, in which you have previously put five parts of mercury.

TO SILVER GLASS GLOBES.

Melt together in an iron spoon two parts of mercury, one each of bismuth, pewter, and lead, and shake them very well together. Before coating the glass globe, dry it well, and introduce some of the mixture ; shake it about in all manner of forms, till the internal surface of the globe is quite covered.

MASSIVE GOLD.

Make hot for some time in a glass retort, equal parts of oxides of copper and sulphur. The oxygen of the oxides is carried on a portion of the sulphur, and converts it into sulphuric acid, which disengages itself; whilst the copper disoxydized unites itself to the other part of the sulphur, and forms a sulphuret of a yellow colour and metallic brilliancy, or in other words, transmutes the copper into gold.

TO VARNISH PLASTER FIGURES.

Melt in a vessel equal parts of pewter and bismuth, and see that they are well united, then add the same quantity of mercury, and shake well together. When required for use, reduce them to powder, and mix up with the whites of eggs.

INSTANTANEOUS LIGHT MATCHES.

Take chlorate of potash and sulphur, of each two drachms ; vermilion or carmine, twenty grains ; oil of turpentine, a sufficient quantity to make a paste ; dip the ends of matches in some oil of turpentine, previous to coating them with the paste. The ends of matches may also be dipped in camphorated spirit of wine.

SHAVING PASTE.

Take almond oil and white wax, of each an ounce ; melt together, and add gradually an ounce of rose water, and an ounce of shavings of Castile soap.

OIL OF SPIKE.

Equal proportions of oil of turpentine and Barbadoes tar.

ANISATED BALSAM OF SULPHUR

Take six pounds each of balsam of sulphur and turpentine, and four ounces of oil of aniseed. Let them stand in a sand bath well heated for a day.

COMPOUND TINCTURE OF COPAIBA
OR JESUITS' DROPS.

Take an ounce of gum guaiacum, two ounces of copaiba, two drachms of oil of saffras, and half a pint of ætherial alcohol.

COLET'S ANTISEPTIC TOOTHACHE
DROPS

Is a compound of equal parts of poppy oil and kreosote, and a very valuable remedy it is.

Remark.—I have witnessed the good effects of kreosote, either in combination with oils or spirit, and also by itself. It gives almost

immediate as well as lasting ease, let the paroxysm of pain be ever so excruciating. It is said by several French chemists to prevent carious teeth from further decay.

COLLEY'S DEPILATORY.

Take quicklime in powder, an ounce ; orpiment in powder, three drachms ; powdered nitrate of potash and powdered sulphur, of each a drachm ; soap dregs, half a pint. Evaporate to the consistence of a soft extract.

BLAINES' POWDER FOR DISTEMPER IN DOGS.

The base of this remedy is sulphate of tin, which is more efficacious in tape worm than the metal itself.

FULMINATING GOLD.

Dissolve gold in aqua regia, or in a mixture of the concentrated acidulous spirit of nitre and salt, adding a sufficiency of spirit of hartshorn to precipitate the gold. The liquor should be carefully evaporated.

GOWLAND'S LOTION.

Jordan almonds, one ounce; distilled water, two pints; bruise the almonds and rub with the water for some time, and strain, then add a scruple of corrosive sublimate previously dissolved in half an ounce of spirit of wine. This wash is of some considerable use in obstinate and unsightly eruptions of the skin.

EXTEMPORANEOUS ACETATE OF ZINC.

If you have no acetate of zinc at hand, put about half a drachm of sulphate of zinc, and two scruples of acetate of lead together, in about six ounces of distilled water. Double decomposition takes place, and the filtered solution will be acetate of zinc.

Remark.—I should prefer a solution of acetate of zinc thus made, to the solution of the crystallized salt. It acts equally astringent, without producing so much pain or inflammation.

LIQUID MAGNESIA.

Gray gives the following form for liquid magnesia :—take eight pints of water, and three drachms of carbonate of magnesia. Mix and pass volumes of carbonic acid gas through the mixture.

Remark.—I cannot see the solution of magnesia ; perhaps it is meant it is minutely suspended.

PRINTING CHARACTERS.

Take lead, five parts ; antimony one part.
The antimony hardens the lead.

FUSIBLE MIXTURE AT A LOW
TEMPERATURE.

Melt together eight parts of bismuth, five of lead, and three of pewter. This mixture is of a lead colour, and so fusible that it melts in water heated to 95°. It is used for coating medals.

ARTIFICIAL GOLD.

Dissolve in a vessel fourteen parts, by weight, of pure platina, nine of copper, and one of pure zinc, covering it with powdered charcoal ; this lump will have the colour, density, and ductility of pure gold, and might replace it in many cases.

COMPOSITION CALLED ARGENTUM.

Molten copper, quite pure, three and a half parts; pure nickel (free from arsenic), one part; Chinese zinc, very pure, half a part. Melt together in a vessel.

GOLD COLOUR.

Take one hundred parts of copper, and fourteen ditto of zinc. Very soft and malleable.

Take copper one hundred to zinc twelve. A finer grain than the preceding. Soft and malleable.

Take copper one hundred to zinc eight or nine. A very fine gold colour, malleable and easily polished.

Take copper one hundred, zinc seven, and pewter seven. Very fine colour, malleable and easily polished.

ARTIFICIAL SPA WATER.

Natron prepared, twenty grains ; magnesia, a scruple ; tincture of steel, ten drops ; muriate of soda, three grains ; water, six pints ; oil of vitriol, eight drops. Add all the ingredients together before adding the acid, and cork up immediately.

HASSAN'S DYE.

A solution of nitrate of silver in distilled water, in which some extract of buckthorn berries has been dissolved, or the sap green of the shops. A similar dye has been long known under the name of the "Greek Tincture."

INK POWDERS.

Calcined vitriol, one ounce ; Prussian blue, two drachms ; powder of gum arabic, one drachm ; and powder of galls, four ounces. Mix altogether. Pour a quart of boiling water on these ingredients.

SILVERING POWDER.

Take forty grains of silver dust ; cream of tartar, three drachms ; common salt, two drachms ; and forty grains of powder of alum. Polish any silver articles with this powder and a soft leather.

WINE TEST.

Dr. Paris quotes a formula for preparing a wine test, in these words :—" Expose equal parts of sulphur and powdered oyster shells, to a white heat for fifteen minutes, and when cold, add an equal quantity of cream of tartar ; these are to be put into a strong bottle, with common water, to boil for an hour, and the solution is afterwards to be decanted into ounce phials, adding twenty drops of muriatic acid to each. This liquor will precipitate the least quantity of lead from wines, in a very sensible black precipitate. As iron might be accidentally contained in the wine, the muriatic acid is added to prevent its precipitation.

Lead will not only correct the acidity of wine, but remove the rancidity of oils : a property well known to painters.”

Remark.—It is a great question, as to the power of lead to remove the rancidity of oils ; it deprives oils of any acid they may possess, and in that way may tend to prevent their smelling strong or thickening.

COMPOSITION FOR STATUES AND MARBLES.

Take copper one hundred parts to zinc eight parts.

CHINESE COMPOSITION.

Take copper eleven parts to zinc one part. More brilliant and harder than copper.

BRASS.

Take fifty parts of burnt carbonate of zinc and twenty parts of charcoal. The composition is yellow, very malleable, very ductile when cold, and brittle when a little heated.

GREEN GOLD.

Take gold, seven hundred parts; and silver, two hundred and ninety-two parts; and melt together.

PREPARATORY COMPOSITION TO
RECEIVE GILDING.

Take copper, eighty-two parts; zinc, eighteen; pewter, three; and lead, one and a half:

or,

Copper, eighty-two parts; zinc, eighteen; pewter, one; and lead, three.

COMPOSITIONS OF PEWTER AND ZINC
AS A SUBSTITUTE FOR BRASS.

Take pewter, one part; and zinc, three parts. Fusible from 260° to 300° :

or,

Take pewter, two parts; and zinc, four parts. Fusible from 300° to 350° :

or,

Take pewter, three parts; and zinc, two parts. Fusible from 250° to 350° :

or,

Take pewter and impure zinc, of each equal parts. Fusible from 250° to 350° :

or,

Pewter and very pure zinc, equal parts. Fusible from 450° to 500° .

ESSENCE OF MALT.

Make a strong infusion of malt, and add to every pint of it four ounces of clarified honey, then evaporate to a proper consistence.

EXTRACT OF OPIUM.

In preparing watery extract of opium, the opium should be reduced to a pulp with boiling water and strained, to which a small quantity of subcarbonate of potash should be added ; after repeated rubbings down, the whole of the liquor should be put into an extract pan, and evaporated to pill consistence.

WEBSTER'S DIET DRINK.

Make a decoction of sassafras, curcumæ, licorice root, sarsaparilla, dulcamara, guaiacum wood, betony, and thyme ; strain the boiled liquor, to which add sugar, and boil to the consistence of a syrup. There are two kinds, with and without sugar.

HERB TOBACCO.

Take coltsfoot leaves, thyme, betony, eye-bright, rosemary, lavender, and marjorum, of each two ounces ; cleavers, three ounces ; hyssop, one ounce ; and camomile beards, half an ounce. Mixed together, and cut small.

SELWAY'S ESSENCE OF SENNA.

A condensed decoction of senna evaporated, to which is added spirit of ammonia.

FRENCH CORN PLASTER.

Take yellow wax, one ounce ; resin, two drachms ; arsnic, thirty-six grains ; turpentine and sulphate of copper in powder, of each four drachms.

CHICOREE COFFEE.

Take twelve pounds of Carolina rice ; chicoree, seven pounds ; Mocha coffee, three pounds and a half ; Florentine iridis, one pound and a half ; best olive oil, twelve ounces ; sugar of milk, half a pound. Torrefy each article separately till they are of a dark brown colour, except the sugar of milk, which should be in a fine powder ; the other articles should be ground in a coffee mill. First mix the oil with the powdered rice, then with the chicory root and sugar of milk. Rub altogether, and pass through a coarse tamis first, and afterwards through a fine one.

ALMOND PASTE.

Blanch four ounces of bitter almonds, add to them three ounces of lemon juice, three ounces of almond oil, and a little weak spirit.

AN AMALGUM OF MERCURY WITH GOLD

May be made in the following proportions as a succeedaneum for filling cavities in teeth :— Take eight parts of mereury and one of gold, and incorporate together in a crucible by heating them. As soon as the gold is thoroughly dissolved, the mixture should be poured into cold water, when it will be ready for use.

COMPOSITION OF BRITISH SILVER.

Take copper, fifty-five parts ; nickel, twenty-three ditto ; zinc, seventeen ditto ; iron, three ditto ; pewter, two ditto. This mixture is of such a nature that it is easily mistaken for silver. It takes a beautiful polish, is very malleable, and is almost equal in weight to silver. Wind instruments made with it are more sonorous than those made with copper or brass. It is an excellent composition for coffee pots, cups, plates, dishes, and other things used at table.

PRINCE ROBERT'S METAL.

Take four parts of copper to one part of zinc.

PINCHBECK

Take five parts of copper to one part of zinc.

QUEEN'S METAL.

Take nine parts of pewter, one part of bismuth, one do. of antimony, and one of tin. This composition tea-pots are made with to imitate silver, which preserve their lustre many years.

FALNASSER'S AROMATIC VINEGAR.

Take acetic acid, eight ounces ; powdered camphor, four drachms ; essence of cloves, essence of rosemary, and essence of lavender, of each a drachm. Macerate in a bath for seven or eight days.

BARKER'S TOOTH TINCTURE.

Tincture of pellitory, coloured with tincture of red cabbage, made with rectified spirit of wine. This preparation is very much used amongst all classes of fashion. It is exceedingly difficult to deprive the tincture of cabbage of its natural disagreeable smell ; but if the alcohol be pure, and the quantity of cabbage leaves employed be limited, and removed from the spirit as soon as a sufficiency of colour is extracted, it will not partake of the disagreeable odour.

TAYLOR'S DEFENSOR FOR CRAYON
AND PENCIL DRAWINGS.

Make a weak isinglass jelly, and whilst hot add to it a small quantity of permanent white (prepared shell powder, very highly calcined till of the most delicate appearance), keep stirring till the jelly is nearly cold, then pour into bottles.

Note. — This preparation is exceedingly injudicious. Suppose, for instance, the drawing is very dark, or almost black, this preparation although of the intended character as defending it from injury by friction, nevertheless it gives the drawing the colour of a dirty grey, which it is highly important it should not do. It very frequently happens that the most simple remedies are the best, and in no case it is so strongly exemplified as in the use of a little clean rice-water, in protecting crayon or pencil drawings from being rubbed out.—E. G. Get a flat vessel capable of admitting a drawing, in which is contained the rice-water, then take the drawing lightly, with both hands pass it gradually under the water *once*, then immediately remove it and lay it on a flat table till it is quite dry. It will be then impossible to rub any part of the pencilling out, at the same time it would be impossible to tell whether or not it had undergone the process of protection. This little secret to crayon and pencil drawers cannot fail to be appreciated, although it appears so

exceedingly simple ; but the more simple and easy the remedy, the more it partakes of an increased value, and saves the requirer many a shilling.

ROSE PINK LIQUID

Is a most delicately-tinged tincture of carmine in proof spirit.

DUPUYTREN'S POMATUM

Is a compound of prepared suet, lard, almond oil, and perfume.

SOLUTION OF CONITINE.

Take half a pint of the juice of unripe grapes, and forty drops of pure conitine.

DETONATING SILVER.

Take some silver, and pour pure nitric acid upon it, add to it after a bit, two or three washings of distilled water ; pour all the liquid away and add some fresh nitric acid, and when the silver is dissolved, pour into the solution, whilst it is going on, a small quantity of alcohol.

PREPARATION OF IPECACUANHA WITH
SULPHURIC ÆTHER.

Take powdered hippo, one part ; rectified sulphuric æther, six parts. Macerate for twenty hours, and filter. Dry in the air the powder that remains on the filter, until it has entirely lost the smell of the æther. Rub it through a *tamis*, and preserve it for use. Ipecacuanha thus prepared, is prescribed in the same doses as common ipecacuanha, and has the same properties, being merely deprived of its disagreeable and irritating smell

and flavour, which make this vomitive so repugnant. The æther is only employed to take up a certain quantity of gross matter, which it does by destroying its nauseous smell and taste.

HOWARD'S FULMINATING MERCURY.

Take a hundred grains of mercury, and add to it an ounce and a half fluid, of nitric acid in an increased temperature. When the solution is complete, let it stand to cool, and when cold, pour two ounces, by measure, of alcohol into a glass measure, apply heat until effervescence is excited; a white vapour undulates on the surface, and a powder is gradually precipitated, which should be immediately collected on a filter, well washed, and cautiously dried, with a very moderate heat.

CEMENTS.

For the information of those who are not possessed of the Philosophical Transactions, or Dr. Ure's elaborate and invaluable Dictionary of Chemical Science, I have here inserted the observations on, as well as formulæ for various cements (amongst which will be found the original and correct form for preparing what is sold in the shops as diamond cement; although not generally known, the recipe is published).—E.G. Seven or eight parts of resin and one of wax melted together, and mixed with a small quantity of plaister of Paris, is a very good cement to unite Derbyshire spar and other stone. The stone should be made hot enough to melt the cement, and the broken edges should be pressed together as closely as possible, so as to leave as little as possible of the cement between them. The first maxim of cementation is to use the cement in strata of extreme thinness, as by so doing the part cemented is much stronger.

Melted brimstone will answer for inferior purposes, but it is not so strong.

When it happens that in setting precious stones, pieces become broken off in any way, it is usual to attach the broken piece so that it can scarcely be seen with tears of gum mastich, the stone being made so hot at the time of applying it as to melt it. By the same medium cameos, white enamel, coloured glass, &c. are often joined to a real stone as a ground, to produce the appearance of an onyx. Mastich is likewise made use of to attach false backs to stones, to alter the hue.

The following cement is that known as Davy's, Bailey's, and some others, although the merit is more particularly due to Dr. Ure, for promulgating the formula. It is directed to be prepared as follows :—Isinglass, soaked in water, till it swells up and becomes soft, is dissolved in French brandy, proof spirit, or rum, so as to form a strong glue. Two small bits of gum galbanum or gum ammoniacum, are dissolved in two ounces of this by trituration, and five or six moderate tears of gum mastich, being dissolved in as much alcohol

as will render them fluid, are to be mixed with this by means of a gentle heat. This cement is to be kept in a phial closely stoppered, and when used, it is to be liquified by immersing the phial in hot water. This cement resists moisture.

A solution of shell lac in alcohol, added to a solution of isinglass in proof spirit, makes another cement that will resist moisture.

So does common glue melted without water, with half its weight of resin, with the addition of a little red ochre to give it a body. This is particularly useful for cementing bones to their frames, or fixing stones in wood work.

If clay and oxide of iron be mixed with oil, they will form a cement that will harden under water. A strong cement, insoluble in water, may be made from cheese. The cheese should be of the poorest description, cut into slices, throwing away the rind, and boiled till it becomes a strong glue, which however does not dissolve in the water. This water being poured off, it is to be washed in cold water and then kneaded in warm water.

This process is to be repeated several times. The glue is then to be put warm on a levigating stone, and kneaded with quick lime. This cement may be used cold, but it is better to warm it, and it will join marble, stone, or earthenware, so that the joining is scarcely to be seen.

Boiled linseed oil, lithrage, red lead, and white lead mixed together to the proper consistence, and applied on each side of a piece of flannel, or even linen or paper, and put between two pieces of metal close together, will make a firm, close, and durable joint that will resist boiling water, or even a considerable pressure of steam. The proportions of the ingredients are not material; but the more the red lead predominates, the sooner the cement will be dry, and the more the white lead, the contrary. This cement answers well for joining stones of large dimensions.

The following is an excellent cement for iron, as in time it unites with it into one mass:—Take two ounces of muriate of ammonia, one of flowers of sulphur, and sixteen

of cast iron filings. Mix them well in a mortar, and keep the powder dry; when the cement is wanted for use, take one part of this mixture, twenty parts of clear iron filings, grind them together in a mortar, mix them with water to a proper consistence, and apply them between the joints. Powdered quicklime mixed with bullock's blood, is often used by coppersmiths to lay over the rivets and edges of the sheets of copper in large boilers, as a security to the punctures, and also to prevent the cocks from leaking.

Six parts of clay, one of iron filings, and linseed oil sufficient to form a thick paste, make a good cement for stopping cracks in iron boilers.

Temporary cements are wanted in cutting, grinding, or polishing optical glasses, stones, and various articles of jewellery, which it is necessary to fix on blocks, or handles for the purpose. Four ounces of resin, a quarter of an ounce of wax, and four ounces of whiting previously made red hot, form a good cement of this kind; as any of the above articles may be fastened to it by heating them, and

removed at pleasure in the same manner, though they adhere very firmly to it when cold. Pitch, resin, and a small quantity of tallow, thickened with brick dust, is much used in the manufactories for this purpose. Four parts of resin, one of bees'-wax, and one of brick-dust, likewise making a good cement. This is particularly adapted to fixing knives and forks in their handles ; but the manufacturers of cheap articles of this kind, very commonly use resin and brick-dust alone. On some occasions, in which a very tough cement is requisite, that will not crack, though exposed to repeated blows, as in fastening or fixing to block metallic articles that are to be cut with a hammer and punch, workmen generally mix some tow with the cement, the threads of which hold its parts together.*

* In the Philosophical Magazine, and Dr. Ure's Dictionary.

DIAPENTÆ.

A cheap mode of preparing diapentæ is by mixing the dregs left after preparing soluble cayenne with some powdered logwood. A great deal of such mixture has been sold for factitious madder. A cheap and expeditious mode of fattening calves, cows, and horses, is by the following ingredients:—Take two ounces of cayenne pepper (or half a pound of dregs), two pounds of true powders of fenugric seeds, and a quart of bran. In many parts of the country, on large grazing farms, it is a very common thing now and then to give a dose or two during the year, to keep up the condition of the cattle. The quantity of ingredients specified above will be sufficient to fatten any calf, and that at a price under two shillings.

RED WATER.

A disease very common in large pasture or forest lands. Lowson accounts for the causes in the most extraordinary manner possible. He states, "the red and black water arise from a preternatural quantity of blood being determined to the kidneys, and a consequent rupture of some of the minute blood vessels of those organs. This undue determination of blood to the kidneys is very frequently induced by turning cattle at the spring of the year into low pasture grounds or woodland pastures, where the air is moist, which relaxes and debilitates the animal frame, and lessens perspirations, occasioning the blood to become too watery. The balance of circulation is deranged from the perspiration being suppressed, and a too great quantity of blood is in consequence determined to the kidneys, which gives rise to the disease. He further is of opinion, that on removing cattle thus affected from the state of the atmosphere, into a more elevated situation, where the air is drier, the beast will frequently be restored

without the aid of medicines." In all cases it is worth while to venture an opinion as to the real causes of any disease, and I have been induced to speak upon this disease because it is one which entails serious losses upon a considerable number of agricultural gentlemen. It does not admit of a doubt, but that the discolouration of the urine arises from some noxious vegetable, containing a considerable quantity of colouring matter, which has been eaten in the perambulation of the beast in large forest pastures (as it never occurs in some enclosures, as meadows). It not unfrequently happens, that within twelve or twenty-four hours after a beast has been turned into fresh forest pasture, that the red water comes on, which is strong argument in favour of the colouring principle of some weed being the cause of the disease, and not the predisposed flux of blood determined to the kidneys, and the consequent rupture of ramifications of the veins. It is a curious coincidence, that any esculent vegetable containing the red principle of colour, as a wonderful tendency to promote a speedy

cure; for this purpose, crop madder with turmeric, to which should be added a small quantity of salt of tartar (all rubbed together for some time to heighten the colour), should be administered in conjunction with a brisk purgative (say two pounds of Glauber salts dissolved in half a bucket of water for a full grown beast, or what is equally good, take a double handful of fox wort chopped small, and add to it an ounce of nitre, and two or three quarts of thin gruel. Either of these doses should be repeated once in every twenty hours till the natural colour of the water is re-produced.

SYRUP OF VIOLETS.

It is so seldom a genuine article, bearing the above name, can be obtained, from the indisposition of wholesale houses to purchase from the druggists in Yorkshire or Warwickshire (the only two counties possessing the beautiful blue violet). It is generally prepared with a little Prussian blue, or prus-

sine. This deviation of a substitute for the genuine colour of the violet, may be readily detected by the addition of a few drops of dilute sulphuric acid to the suspected syrup, which will destroy the colour if not genuine, but will retain it, if so.

INVISIBLE INK.

Take a solution of sulphate of copper and sal ammoniac, and write with it. It is invisible in the cold, and of a yellow tinge when heated.

SIRUBA.

This volatile fluid is, in respect to medical properties, anti-spasmodic, anodyne, and resolvent. It is employed with extraordinary success, not only in gout, rheumatism, and nervous disorders, but especially in cramps of the limbs, stomach, and bowels. Even in tetanus, it has been found a most efficient

auxiliary with other anti-spasmodics, viz. opium, calomel, and the vapour bath. In this manner, too, it has been employed in several cases of incipient and collapsed cholera, and that with invariable success, taken in such cases in doses of fifteen or twenty drops on a lump of sugar, and repeated every hour or two, or oftener, according to the severity of the symptoms, the oil being also applied externally, or rubbed on the parts suffering under spasm.*

As a tonic, nervine, and alterative, it is taken in a dose of two to four or six drops, once or twice a day, with the use of a mild diet, and moderately warm clothing. All heating food and liquors should, in such a course, be avoided, and diluents, especially barley water, taken as ordinary drink. It promotes perspiration, and improves the

* Certain analogies are in favour of the use of this remedy in cholera—the oil of cajeput and peppermint have been found very useful, as we learn from authorities most worthy of confidence, especially Sir Matthew Tierney, and Dr. James Johnson.

appetite remarkably. It is resorted to for sprains and bruises, as well as in all pains, cough, consumption, &c. ; as also for clearing the skin of ring worm, and of all foul and herpetic eruptions ; it is thus employed by the creole ladies as a cosmetic for removing spots and freckles from the face. I have found that its early application to lacerated wounds, will cause them to heal as kindly as simple cuts. Of this I have seen numerous examples, and it infallibly prevents the ill effects from dissection wounds or venemous bites, being timely applied and taken inwardly. Its application to recent wounds, occasions no irritation or pain ; whilst these effects are excessive from alcoholic or other stimuli. Its operation, therefore, is balsamic, or soothing—most congenial to the blood, and to the nervo-muscular fibre. From analogy we may presume, it would be equally useful in gun-shot wounds, but this has not been tried.

I am aware of no other instance of an æthercal or volatile oil being found collected

in the cavities of a tree, excepting the oil of camphor, so termed, which is semi-fluid, and found in a large tree in the island of Java, and like the Siruba is regarded as a most precious remedy amongst the natives, and seldom or never reaches this country. “Eadem arbor fundit *oleum* camphoræ, est potius resinæ liquida quam oleum. Extra patriam, non usu venit, sed excellit vi resolvente et dissipante.”*

DRY LEMONADE.

Extract any quantity of lemon juice from the finest lemons, cover it closely over for the mucilage to separate. The clear juice should be exposed to seven or eight degrees of cold below the freezing point, when the aqueous part will freeze, and the ice may be taken

* Murray's Apparet. Medicaminum, vol. iv. page 453. Colebrook, in Asiatic Researches, vol. xii. Philos. Trans. vol. lxxviii. Marsden's His. Sumatra. Vide Dr. Hancock.

away as it forms ; if the process be pushed to a greater degree of cold, or continued even at that temperature, part of the acid will be taken up with the water, which should be avoided, and which may be known by tasting the ice from time to time. The acid thus created in a condensed form, is applicable for mixing with finely pulverized loaf sugar, till of a grateful flavour. It is far preferable to citric acid, as it retains the characteristic flavour of the lemons, and may be kept in solution with distilled water for ready use.

CARMINE.

This article, when properly (or very nicely) prepared, may be made an article of some considerable profit. Chemists generally prepare it so very slovenly, that it is totally unfit, in point of colour and lightness, for use in confectionary ; consequently, all the first rate confectioners are under the necessity of making their own. We find the following

formula for the preparation of carmine, in several works: but although it is the one very generally acted upon, it is wanting of the necessary minutiae and elaborate tediousness to be observed in the process, as well also as being not the best form:—Four ounces of finely pulverized cochineal are to be poured into four or six quarts of rain or distilled water, that has been previously boiled in a pewter kettle, and boiled with it for the space of six minutes longer (some advise to add, during the boiling, two drachms of pulverized crystal of tartar), eight scruples of rock alum in powder are then to be added, and the whole kept upon the fire one minute longer. As soon as the gross powder has subsided to the bottom, and the decoction is become clear, the latter is to be carefully decanted into large cylindrical glasses, covered over and kept undisturbed till a fine powder is observed to have settled at the bottom. The superincumbent liquor is then to be poured off from this powder, and the powder gradually dried. From the decanted liquor, which still contains much colour, the rest of

the colouring matter may be separated by the means of solution of tin, which yields a earmine little inferior to the other.

Remark.—In directing the preparation of carmine, it should be particularly impressed, that after all the ingredients are together, they should at least be washed twenty times with distilled water and suffered to stand, and each of those washings should be discarded for other purposes, viz. the preparation of lakes or inferior carmines. Fresh portions of pulverized crystallized tartar and Roman alum, should be again added to what might be denominated the dregs ; but, in reality, containing the article in request. After the powders have subsided, and have remained macerating for several days, the clear liquor should be carefully poured off into cylinder glasses, and proceed as before. The best formula, together with some necessary observations on preparing earmine, will be found in Jarrin's valuable Treatise on the Art of Preparing Colours for Confectionary. It is an important error in giving the latitude of the use of rain or distilled water. The use of the distilled is a *sine quá non*.

BRASSICA RUBRA.

An acidulated (spirit of vitriol) tincture or red cabbage (made from the thinnest and most colourable leaves) would form a satisfactory ingredient in tooth tinctures, where no alkalis are employed.

ESSENTIAL SALT OF LEMONS.

The original form for preparing this salt is no other than acetosæ salts reduced to powder. The super-oxalate of potash and cream of tartar, in equal proportions, is now very generally the form ; and in consequence of oxalic acid being employed, the public are cautioned against the use of the salt as applicable to lemonade. The citric acid or fresh lemon juice will answer every purpose.

JAMES'S POWDER.

The article substituted for the original, is the pulvis antimonialis of the Pharmacopœia. Probably the latter oxide may be equally efficacious with the former; but what has that to do with the substitution of one article for another? If, for instance, a practitioner, during the progress of his profession, finds that sulphate of magnesia is a more valuable purgative than tartrate of soda, what presumptive person would dare to substitute the latter salt in lieu of the former, in dispensing a prescription? Just so regarding the oxides in question; we are not to stop to inquire whether the oxide be a *per* or a *non-per*, that is prescribed; we are directed to dispense so and so; we have, therefore, but one straightforward course to follow. We are not to say this medicine is too dear to be employed, or the other is too cheap to be good. Dr. James's patent states his form for preparing the antimonial powder to be as follows:—"Take antimony, calcine it with a protracted heat in

a flat unglazed earthen vessel, adding from time to time a sufficient quantity of any animal oil and salt, well dephlegmated; then boil it in melted nitre for a considerable time, and separate the powder from the nitre by dissolving it in water." It is more than probable, but that the original formula is a mechanical compound of a calx of antimony, with an hyper oxide.

DR. JAMES'S ANALEPTIC PILLS

Are dogmatically pronounced to be a compound of James's powder, gum ammoniacum, and the pills of aloes with myrrh, with a sufficient quantity of tincture of castor to form a mass. There is no doubt but that the valuable powder of Dr. James is a material ingredient in the analeptic pills; but there is not shadow of data to go upon in directing the other ingredients. It is not doubtful about the composition being James's powder and essential salt of bark, made up into a mass with the syrup of castor, ordered in Quincey.

ICE WATERS,

FROM WALKER'S AND FERGUSON'S TABLES.

TAKE phosphate of soda, five parts ; nitrate of ammonia, three parts ; dilute nitric acid, four parts, mixed together.

Take phosphate of soda, two and a half parts ; nitrate of ammonia, two parts ; diluted nitro muriatic acid, four parts, mixed together.

Take snow, three parts ; dilute nitric acid, two parts, mixed together.

Take snow, ten parts ; dilute sulphuric acid, four parts ; dilute nitric acid, three parts, mixed together.

Take of snow and dilute sulphuric acid, equal proportions, mixed together.

Take snow, three parts ; muriate of lime, four parts, mixed together.

Take snow, two parts ; and muriate of lime, three parts, mixed together.

Take snow, one part ; and crystallized muriate of lime, two parts, mixed together.

Take snow, eight parts ; dilute sulphuric acid, twelve parts, mixed together.

N. B.—The tables contain the degrees of cold produced by admixture at different temperatures, but for all common purposes, the formulæ is all that is necessary.

CHELTENHAM WATER.

Take a drachm of Rochelle salts, twenty grains of carbonate of soda, five grains of muriate of soda, and half a pint of tepid water, and filter.

BUXTON WATER.

Take half a drachm of tartrate of soda, and fifteen grains of carbonate of ditto, dissolved in a bottle of spring water, to which add wine of iron, a teaspoonful. To be kept tightly corked.

Remark. — These waters conjoined with cathartic infusions composed of senna, rhubarb, manna, &c. help to extract their purgative qualities, and assist in promoting a more copious evacuation. Aqua ferruginæ should be always kept tightly corked, and are to be preferred taken in a state of effervescence, as they owe their tonic properties to the presence of the iron, which, by long exposure to the atmosphere, and in confined quantities, become separated ; whereas, by occupying a space in conjunction with an active body, their ferruginous qualities are kept suspended in the most minute division.

DOMESTIC RECIPES.

USEFUL forms of extemporaneous prescription. The doses prescribed are intended for an adult.

PURGATIVE DRAUGHT.

Take rhubarb and jalap in powder, of each ten grains, and half an ounce of peppermint water.

APERIENT PILLS.

Take compound extract of colocynth, extract of rhubarb and scammony, of each two grains, and one grain of ginger. Mix, and divide into two pills for a dose.

SPASMODIC DRAUGHT.

Take ammoniated tincture of valerian, two drachms ; tincture of assafœtida, twelve drops ; compound tincture of cinnamon, one drachm ; and camphor julep, two ounces, mixed together.

Remark.—This draught may be repeated every quarter of an hour whilst the spasms continue.

TONIC DRAUGHT.

Take compound tincture of bark, two drachms ; tincture of orange peel, two drachms ; spirit of cinnamon, twenty drops ; and pimento water, one ounce and a half. Take once a-day for weakness of the stomach.

DRAUGHT FOR LOOSENESS OF THE BOWELS.

Take two drachms of tincture of catechu, one ounce and a half of compound chalk mixture, and ten drops of tincture of opium. Mix, and take three times a-day, as long as necessary.

WORM POWDER.

Take rhubarb and jalap, of each fifteen grains, and four grains of calomel, mixed. To be taken in honey.

DIURETIC MIXTURE FOR DROPSY.

Take decoction of broom, half a pint; cream of tartar, one ounce; tincture of squills, two drachms. Mix, and take a third part three times a-day.

COUGH PILL.

Take compound squill pill, four grains ; powder of opium, half a grain ; gum benzoin, one-fourth of a grain. Mix, and make a pill. Take one twice a-day.

COUGH MIXTURE.

Take ammoniacal mixture, six ounces ; paregoric, half an ounce ; syrup of tolu and wine of ipecacuanha, of each two drachms. Make a mixture, and take a table spoonful three times a-day for *old coughs*.

ANOTHER COUGH MIXTURE.

Take almond milk, six ounces ; syrup of tolu, one ounce ; wine of tartarized antimony and ipecacuanha, of each two drachms. Mix, and take a third part three times a-day for *recent coughs*.

ASTRINGENT GARGLE FOR RELAXATION
OF THE UVULA.

Take tincture of catechu, one ounce ; dilute sulphuric acid, one drachm ; water, seven ounces ; laudanum, one drachm. Mix.

PILLS FOR RELAXATION OF THE
UVULA.

Take half a grain of sulphate of copper, and a sufficiency of conserve of hips to make a pill. Let the pill gradually dissolve, and keep the solution as much as possible upon the relaxed part, taking care not to swallow more than you can avoid. Once a-day will be sufficient.

OINTMENT FOR SORE EYE-LIDS.

Take levigated red precipitate, twenty grains ; and one ounce of elder-flower ointment (very fresh). Mix, and apply with a camel's hair brush.

LOTION FOR CHRONIC ULCERATION
OF THE EYE-LIDS.

Take lapis calaminaris, half an ounce ; wine of opium, sixty drops ; and camphor water, half a pint. Mix, and shake before using. The part affected to be washed with this solution three times a-day.

DETERGENT GARGLE FOR INFLAM-
MATORY SORE THROAT.

Take nitre in powder, two drachms ; honey of roses, six drachms ; infusion of roses, five ounces. Mix, and make a gargle, to be used every two hours.

EMBROCATION FOR SORE THROAT.

Take the strongest solution of ammonia, three drachms ; rape oil, one ounce ; laudanum, two drachms. Mix, and well rub the throat.

ANALYSIS OF PROMINENT MEDICINES.

MORISON'S PILLS.

GAMBOGE, supertartrate of potash, colocynth, aloes, and squills, in minute quantities.

DIXON'S PILLS.

Resin of jalap, scammony, rhubarb, Castile soap, and socotrine aloes ; pretty equal proportions, with a trace of tartarized antimony.

HUNT'S PILLS.

Powdered compound extract of colocynth, one drachm ; powder of resin jalap and Castile soap, of each half a drachm ; and a small quantity of powder of cloves.

BALSAM OF ANISEED.

Two ounces of licorice, one ounce of paregoric, and two drachms of syrup of tolu.

ESSENCE OF MUSTARD.

Bruise mustard seeds, and pour upon them oil of turpentine, to which add oil of rosemary.

MAGNESIAN APERIENT.

Take highly-dried carbonate of heavy magnesia and sulphate of magnesia, well triturated together, then add a requisite quantity of highly-exsiccated tartaric acid, and mix.

ESSENCE OF HONEY AND HOREHOUND.

Rectified spirit of wine, a pint ; laudanum, one ounce ; tincture of tolu, two ounces.

POMADE FOR GOUT AND
RHEUMATISM.

One drachm of powdered opium ; veratrine, half a drachm ; and lard, one ounce and a half.

BOERHAAVE'S RED PILL.

Oxymuriate of mercury, with golden sulphuret of antimony.

LEAKE'S PATENT PILLS.

Turpeth's mineral, colocynth, and sulphate of potash.

MINERAL SUCCEDANEUM,

For filling decayed Teeth.

Take some tinfoil (say an ounce or two), and add to it a very small quantity of quicksilver ; place it in a boiling heat, in a convenient vessel (saucepan, if you like) for some

time. When you perceive the mercury has amalgamated itself with the foil, remove it from the fire; take some of it and knead it in the palm of your hand, and apply it as quickly as possible, (*i. e.*) whilst the heat is sufficient to keep them combined.

Remark.—The absurdity of the use of this preparation is perhaps only known to those who have witnessed its inutility. As soon as the temperature is decreased below, or raised above a certain point, decomposition takes place, and the mercury, which before was amalgamated with the foil, leaves it, and they become separate bodies.

By scraping the foil and silver from the back of a looking-glass, and agitating them briskly in a bottle, they will amalgamate and become perfectly fluid; and I cannot conceive anything more appropriate than the mixture, as something new for filling decayed teeth.

In the same manner *terro-metallicum*, and all the composition for stopping decayed teeth are prepared, the mercury and tin-foil forming the basis of the nostrums.

SILICIA.

Take some gypsum (very fine and light), a small quantity of levigated iron filings, and a sufficieney of the dregs of solution of gum mastieh in spirit.

SAUCES.

SAUCE ARISTOCRATIQUE.

POUND green walnuts in a mortar, squeeze out the juice through a strainer, and let it stand to settle. Pour off the clear, and to every pint of juice add a pound of anchovies, one drachm each of cloves, mace, and Jamaica pepper (bruised). Boil together till the anchovies are dissolved, strain it off, and put in a good handful of shalots, and boil again. To every pint of the above, add half a pint of best brown vinegar, and three ounces of soy.

SAUCE AU ROI.

Take a quart of best brown vinegar, three table spoonfuls each of soy and walnut ketchup, three shalots (cut small), one ounce of cayenne pepper, and four bruised cloves.

Remark.—Keep these ingredients together for a month, and shake them frequently. Ketchups in sauces are not generally to be approved, except they are made at home, and can be warranted a perfect essence of the fruit, as they tend to thicken every description of cold meat sauces, which makes them unsightly and unsaleable.

TOMATA SAUCE,

To keep any length of time.

To eight dozen of love apples add a quarter of a pound of green capsicums, sliced, with six good sized shalots, one large clove of garlick, and one pint of vinegar, to be well mixed together, and drawn down over a slow fire for three hours, or put into a crock, and

sent to the bakehouse over night, that the oven may not be too hot. Rub through a sieve as dry as possible, and boil quickly till it becomes rather thick. Boil a quart of best vinegar with an ounce of ginger, a clove of garlick, six shalots, and a table spoonful of salt, for five minutes. Strain it to the sauce when quite cold and bottle it. Pour a small quantity of oil on the top, and tie it down with bladder. If for travelling, a cork and leather is best. If you cannot procure capsicums, introduce half a pint of Chili vinegar, and but three half pints of pickling vinegar.

Remark.—If this recipe be strictly adhered to, it will keep in any climate, and for years.

ANOTHER,

For present use.

Boil down six tomatas in a small quantity of vinegar ; rub it through a sieve, and add a little glaize or good gravy, with a small portion of cayenne and salt, and about a dessert spoonful of fresh lemon juice.

QUIN SAUCE.

The same as Sauce Aristocratique, leaving out soy.

HARVEY'S SAUCE.

Take quin sauce, six ounces ; soy, two ounces ; cayenne, two drachms ; brown vinegar, four ounces.

ESCHALOTTE SAUCE.

Steep shalots (sliced) in equal parts of port wine and vinegar, and put in a small bit of lemon thyme, and add to it a third part of mushroom ketchup.

PIQUANTE SAUCE.

Take two ounces of cayenne pepper, a pint of brown vinegar, and an ounce of soy and port wine.

Remark.—Let these ingredients stand macerating for a few weeks ; strain and bottle for use.

NEW SAUCE.

Take a gallon of port wine, half a pound of scraped horse radish, three ounces of cayenne pepper, and a pound of garlic. Boil ten minutes and strain when cold.

ISLE OF WIGHT SAUCE.

Take a quart of soy, ditto of port wine, ditto of brandy, ditto of mushroom ketchup ; mixed together.

ESSENCES.

ESSENCE OF ANCHOVIES.

TAKE ten pounds of anchovies, one pound of bay salt, and half an ounce of powder of gum tragacanth, a little colouring matter, and one gallon of spring water.

ESSENCE OF ORANGES.

Take two ounces of oil of oranges, and four ounces of alcohol.

ESSENCE OF CARAWAY SEEDS.

Take two drachms of oil of caraway, and six drachms of spirit of wine.

ESSENCE OF CLOVES.

Take a drachm of oil of cloves, and six drachms of spirit of wine.

ESSENCE OF NUTMEGS.

Take two drachms of oil of nutmegs, and six drachms of spirit of wine.

ESSENCE OF MACE.

Take three drachms of oil of nutmegs, and six drachms of spirit of wine.

ESSENCE OF ALLSPICE.

Take two drachms of oil of pimento, and six drachms of spirit of wine.

ESSENCE OF CINNAMON.

Take two drachms of oil of cinnamon, and six drachms of spirit of wine.

ESSENCE OF CASSIÆ.

Take two drachms of oil of cassiæ, and six drachms of spirit of wine.

Remark.—To make the above essences of cordial flavour, add two drachms of capillaire to each given quantity.

GENERAL RECIPES.

MOUTARDE SUPERBE.

TAKE two drachms of garlic, one drachm each of shalots, sweet marjorum, and lemon thyme, and a quart of best brown vinegar; steep these for a week or more, and strain.

Remark.—When you require mustard for the table, make it with this liquid. For exportation, mustard should be prepared ready for use with some such liquid as the above, with the addition of a clove or two.

POTENT MUSTARD.

Take four ounces of powdered cayenne pepper, and three pounds of finest flour of mustard, mixed together.

SALBERG WASH FOR DESTROYING BUGS.

Take half an ounce of oxymuriate of mercury, two ounces of muriate of ammonia, and two pints of water, mixed together.

Remark.—Thoroughly wash the bedstead with this wash.

TO PRESERVE AND FLAVOUR HAMS AND TONGUES.

Take two ounces each of bay salt and coarse brown sugar, and two table spoonfuls of Cambrian essence, for a tongue, and an increased quantity for a ham.

APPLE WINE.

Take equal quantities of orange and nutmeg pippins, grind them in an apple mill, and press out the juice through a hair cloth. To every gallon of juice add two and a half

pounds of lump sugar. Put it into a cask, and ferment it in the usual way. When it has worked a short time, bung it down, and should the fermentation continue, lift the bung and put in a few pieces of isinglass.

Remark.—A bushel of apples will produce about five gallons of juice. The above is better than much of what is called and sold for sparkling champagne.

SAVORY JELLY.

Make a strong veal stock, strain it through a sieve and let it stand till cold, and take off the fat quite clean ; add some Tarragon vinegar, and a few juniper berries.

Remark.—Clarify it the same as calves'-feet jelly.

LIQUID CAYENNE.

Take four ounces of finely powdered cayenne pepper, to which put equal parts of spirit of wine and water, to make a strong tincture ; or, powdered cayenne pepper, four ounces ; powdered gum tragacanth, thirty grains ; water, two ounces ; and sherry wine four ounces. Mixed together. This form of cayenne may be made use of in preparing extemporaneous sauce, as may also the crystallized.

ZEST FOR GRAVIES.

Take of powdered thyme, sweet marjoram, sage and savoury, of each two drachms, cayenne in powder, half an ounce, angelica in powder, one drachm, and coriander seeds two drachms. To be well mixed together.

Remark.—This zest is a great improvement upon Kitchener's, and likely to become a decided favourite with the public.

MOCK BRAWN.

Put four feet, two ears, and two chaps of a pig into two quarts of water, and let it boil for several hours, till the bones can be picked from the meat, then pour it into a basin, skim off the fat, and take away all the bones; put it again into a saucepan with a little chapped parsley, and let it all boil together ten minutes; lastly, pour it into a mould to be turned out.

CURAÇOA.

The peels of three dozen Seville oranges, two and a half pounds of white sugar candy pounded very fine, two ounces of cinnamon, and four bottles of brandy.

The whole to be put into a stone bottle and shaken occasionally. To be bottled in three weeks.

Remark.—A very delicious article.

TO MAKE BROWN TINCTURE.

Pour spirit of wine upon raspings of burnt crusts, to which add a very small quantity of bruised rhatany root. Let these stand till coloured sufficiently, and pour off for use.

BROWN SALT.

Take any quantity of table salt, and pour upon it equal parts of browning and spirit of wine. Evaporate to dryness, and rub through a sieve, or not, as you please.

RED SALT.

Take any quantity of table salt, and mix with it a little carmine in spirit of wine, sufficient to colour it; evaporate, and proceed as for brown salt.

PRESERVED HORSE RADISH.

Scrape horse radish and pour distilled or brown vinegar upon it, and cork it up.

GINGER WINE.

Take seven gallons of water, eight pounds of refined sugar, two ounces and a half of sliced ginger. Boil these a full hour with the whites of four eggs, scum it whilst it boils, and strain it into a tub to stand till cold ; put it into a barrel with the juice of three very large lemons, and the peel of four cut very thin, and a spoonful of yeast. Stop the cask down well, and in a fortnight it will be fit to bottle, and in another to drink.

GINGER BEER POWDERS.

Take ten drachms and twenty-four grains of carbonate of soda, ten ounces of powdered lump sugar, and one hundred and ninety-two grains of powdered Jamaica ginger. Mix and divide into twelve powders, and wrap up in blue paper. Take also thirty grains of powder of tartaric acid, and wrap up in white paper.

PERMANENT INK.

To a strong solution of nitrate of silver in distilled water, add a little sap green, and previously to writing on the linen, wet the part intended to be written on with the following liquid pounce : take two ounces of subcarbonate of soda, two drachms of gum arabic, and a pint of soft water. Let these be all mixed together, and as soon as the solution is complete it is ready for use.

Remark.—The best kind of marking ink is that sold under the name of “Ford.” It requires no mordant, and can be used at any time without a preparation.

BROWNING.

Take two pounds of powdered lump sugar, and half a pound of fresh butter ; put them together in a frying pan and keep on the fire till it becomes quite a chocolate brown, then add one quart of port wine, and three quarts of elder ditto, six ounces of shalots, one ounce of mace, four ounces of spice, four ounces of black pepper, two pints of ketchup, and half a pound of salt, and a pint of fresh lemon juice. Boil all these together, and let stand to settle, afterwards pour off the clear liquor for use.

LEMON PICKLE.

Equal proportions of lemon juice and vinegar, salted and spiced to palate.

PICKLING SALT.

Equal parts of brown sugar and bay salt.

SOOJIE.

Take powdered pearl sago, fourteen pounds ; East Indian or English arrow-root, two pounds ; rusk powder, one pound. Mixed together.

NANKEEN DYE

Is made by boiling Spanish annatto in water, and adding a little prepared kali and alum.



ANNOTATIONS
ON
THE PHARMACOPŒIA.

The first part of the paper discusses the importance of the study of the history of the English language. It is pointed out that the English language has a long and varied history, and that it is important to understand the changes that have taken place over time. The second part of the paper discusses the importance of the study of the history of the English language. It is pointed out that the English language has a long and varied history, and that it is important to understand the changes that have taken place over time. The third part of the paper discusses the importance of the study of the history of the English language. It is pointed out that the English language has a long and varied history, and that it is important to understand the changes that have taken place over time. The fourth part of the paper discusses the importance of the study of the history of the English language. It is pointed out that the English language has a long and varied history, and that it is important to understand the changes that have taken place over time. The fifth part of the paper discusses the importance of the study of the history of the English language. It is pointed out that the English language has a long and varied history, and that it is important to understand the changes that have taken place over time. The sixth part of the paper discusses the importance of the study of the history of the English language. It is pointed out that the English language has a long and varied history, and that it is important to understand the changes that have taken place over time. The seventh part of the paper discusses the importance of the study of the history of the English language. It is pointed out that the English language has a long and varied history, and that it is important to understand the changes that have taken place over time. The eighth part of the paper discusses the importance of the study of the history of the English language. It is pointed out that the English language has a long and varied history, and that it is important to understand the changes that have taken place over time. The ninth part of the paper discusses the importance of the study of the history of the English language. It is pointed out that the English language has a long and varied history, and that it is important to understand the changes that have taken place over time. The tenth part of the paper discusses the importance of the study of the history of the English language. It is pointed out that the English language has a long and varied history, and that it is important to understand the changes that have taken place over time.

ANNOTATIONS ON THE
PHARMACOPŒIA.

ACIDS,

WHEN concentrated, are exceedingly caustic. They change vegetable blues to red. Most of them possess an inflammable base, acidified by oxygen.

Vinegar results from acetous fermentation, and is composed of acid, gluten, mucilage, extractive matter, &c., and generally possess, more or less of sulphuric acid, which is detected by treating it with acetate of baryta, or a salt of lead, the sulphuric acid going over to the base, forming a sulphate (if sulphate of lead, it is insoluble). It is freed from all adventitious combination by distillation. The adulteration of vinegar by lead, is detected by sulphuretted hydrogen, copper, by ammonia, &c., used in the formation of neutral acetates.

ACETUM CANTHARIDES.

This preparation is just now entered in the college law. It has, however, been long in use in Ireland. About twelve years since, it was introduced as a liquid blister, under the name of the “Liquor Acetatis Lyttæ,” and very generally preferred to the Emplastrum Lyttæ. It is much more speedy and more certain in producing a blister than the plaster; the application being by means of the finger, or a camel’s hair brush.

ACETUM COLCHICI.

The vinegar takes up in solution a great deal of extractive matter of this vegetable, combined with a very small portion of its active principle.

ACIDUM BENZOICUM.

A balsamic resinous gum, possessing large quantities of benzoic acid, which is sublimed by heat. Soluble both in alcohol and water.

ACIDUM CITRICUM.

By adding lemon juice to the chalk, citrate of lime is formed; the chalk being a compound of carbonic acid and lime, and the lemon juice of mucilage and citric acid. The carbonic acid of the lime is disengaged by adding the citric acid of the lemon juice, whilst, by the addition of sulphuric acid, a sulphate of lime (insoluble) takes place, which sets free the citric acid in solution. If sulphuric acid is present in this acid, superacetate of lead deposits a precipitate insoluble in nitric acid. If adulterated by tartaric, a solution of potash will form with it a speculæ of crystallization (bitartrate of potash).

ACIDUM HYDROCHLORICUM.

The acid and the water should be mixed together first, and the increased temperature thereby occasioned suffered to cool before adding the chloride of sodium, or an abundance of gas is extricated in a very rapid manner. If adulterated with sulphuric acid, a white precipitate is thrown down by muriate of baryta, and iron by prussiate of potash.

ACIDUM NITRICUM.

The base of the nitrate having greater affinity for sulphuric acid than for the one in combination, the compound is decomposed; the potash combining with the sulphuric acid, sets the nitric free in a form of vapour, which condenses on cooling. Nitric acid is a useful medicine in dyspeptic cases, predisposed to biliary concretions, or inspissated bile, and as an alterative tonic.

ACIDUM SULPHURICUM.

More or less impregnated with lead, from being prepared in leaden chambers, which separates on diluting it with water. As a medicine, it is of great use in hemorrhage, phthisis, hæmoptysis, &c. when the bowels are not irritable. A morbid alternation between the bowels and the skin frequently prevents its use.

ACIDUM TARTARICUM.

In preparing this acid, the bitartrate of potash, containing two portions of acid to one of base, it consequently changes itself on the addition of the lime with another base, forming a tartrate of potash and lime, the carbonic acid of the lime escaping during the decomposition. In the latter state, the lime falls to the bottom, being insoluble, whilst the tartrate of potash remains in solution, when, by adding hydrochloric acid and lime (hydrochlorate), an action is again produced by

double decomposition, the bases transfixing the acids. The hydrochlorate of potash formed, continues in solution, whilst tartrate of lime is thrown down. Sulphuric acid, in a diluted state, is then to be added, which seizes the lime decomposing the tartrate, which sets free the tartaric acid in solution in the water. It is then to be crystallized by evaporation. Tartaric acid, if used in saline draughts, should always be in combination with soda, for if with potash, it would form an insoluble bitartrate.

ÆTHER SULPHURICUS.

The mixture of the acid with the rectified spirit forms a compound, which may be denominated an acidified vinous spirit. The employment of heat decomposes it in part, giving out sulphurous acid, which is counteracted by the potash. The disengagement of the acid materially lightens its specific gravity.

AMMONIA SESQUICARBONAS.

Double decomposition takes place in the formation of this compound. A chloride of calcium is the residue, whilst the carbonic acid, in conjunction with the ammonia and a portion of water, sublimes.

LIQUOR AMMONIÆ.

In the preparation, the hydrochloric acid having a stronger affinity for lime than for ammonia, unites with the former in a state of muriate. The ammonia passing over into the receiver, which is taken in solution by the water.

MORPHIA.

The ammonia is added to the hydrochlorate of morphia, to decompose it, and attach it to itself, thereby precipitating the morphia.

DISTILLED WATER.

The object of rejecting the two first pints which pass over, is, that if the water employed for distillation should contain any volatile principle attached to any foreign matter, with which all waters are more or less combined, it would pass over at the commencement. And, again, all extraneous matters or impregnations tend to decompose distilled waters, rendering them fœtid and unfit for use. In the compounding of most all medicinal chemicals, it is absolutely necessary to use distilled waters, for waters undistilled contain earthy matter composed of lime, magnesia, and a variety of other substances which would partially counteract the active principles of acids and acidified compounds. Many solutions of the compounds of silver, copper, mercury, lead, potash, barium, iron, &c. which are commonly employed as tests, would be in a measure deprived of their usefulness as precipitating agents, were their solutions not by distilled water. Water has not the property of dissolving any portion of essential

matter of plants. The aroma is merely suspended in minute division, passing over along with the water condensed, and held in suspension, which, by standing, spontaneously precipitate, losing the smell and flavour of the plant from which they were drawn.

CONFECTIO AMYGDALÆ.

A nicer emulsion is prepared with one ounce of powdered gum, rubbed with four ounces powdered sugar, then add half an ounce of oil of almonds, and triturate well together, and add gradually the vehicle.

CONFECTIO AROMATICA.

It would be much better to form the confection with a thin syrup of saffron. This preparation ought never to be combined with acids.

DECOCTUM GRANATI.

The decoction of pomegranate is now superseded by the decoction of the bark of the roots of the pomegranate tree.

EXTRACTA.

The preparing extracts requires perhaps as great attention as chemical combination. The maceration of the vegetables employed should always take place in a temperature of not more than 84° Fahrenheit; the active principle of vegetables so readily yielding to a menstruum at a slight increase of heat. Boiling destroys whatever volatile principle may be contained in the plant, and long continued coction destroys its odour and flavour. The evaporation should take place in a water-bath, for the power of continued intense heat converts the subject employed to inert matter. Inspissated juices should be suffered to spontaneously evaporate.

Extractive active matter speedily undergoes a change, becoming both oxydated and precipitated ; precipitated in solution, and oxydated in form of extracts.

ANTIMONII POTASSIO-TARTRAS.

This is the antimonium tartarizatum of the old Pharmacopœia ; hydrochloric acid being substituted for sulphuric in the preparation. A useful medicine in nauseating doses, to reduce febrile and arterial actions. Combined with expectorants, it lessens the cough by increasing the secretion from the mucous membrane of the trachea. Antimonial preparations are readily oxidizable by uniting with vegetable acids. The preparation is not quite so active with hydrochloric acid as with sulphuric. In solution in water it is spontaneously decomposed, consequently, the necessity of a little alcohol to keep it in solution. The tartaric acid, from this circumstance, loses its solvent power, and the oxide is precipitated.

PULVIS ANTIMONII COMPOSITUS.

Not a chemical compound, merely a mechanical mixture of the oxide of antimony and phosphate of lime. During the application of heat, the sesqui sulphuret of antimony is decomposed, and likewise the harts-horn shavings. The sulphur is driven off from the former, and the animal matter from the latter. There is nearly sixty per cent. loss in the preparation.

ARGENTI CYANIDUM.

In preparing this compound, the nitrate of silver is decomposed by the hydrocyanic acid, setting free its water, and forming a cyanide of silver, insoluble in water which is precipitated.

ARGENTI NITRAS,

As prepared according to the Pharmacopœia, gives a dark mass, which when dissolved gives a dark black precipitate (oxide of silver) which varies in quantity according to the heat, and other circumstances employed in its preparation. But if to the nitrate in a state of fusion, is added a few drops of strong nitric acid, or some unwashed and still damp crystals of the nitrate, consequently containing adhering nitric acid, the precipitated oxide is re-dissolved, and the resulting product is of a beautiful white colour, completely soluble in distilled water.

LIQUOR POTASSÆ ARSENITIS.

This preparation is frequently prescribed under the name of “Fowler’s Arsenical Solution.” The alkali is merely added to assist the solution of the arsenious acid. The strength of this preparation is increased by the new law.

CALX CHLORINATA,

The bleaching powder of the shops. Chlorine is absorbed by the lime, and continues in combination with it, except when diluted with water, or decomposed by a moist atmosphere.

FERRI AMMONIO-CHLORIDUM.

A compound of iron, ammonia, and hydrochloric acid, soluble in alcohol, which forms the tincture under the above name.

FERRI SESQUI OXIDUM.

A double decomposition here takes place. The sulphuric acid of the iron goes over to the soda, forming sulphate of soda, whilst the carbonic acid combines with the iron, forming a carbonate of iron. In drying, it combines with oxygen, and becomes hyperoxydated, which darkens its colour. Iron combines with two proportions of oxygen,

the minimum quantity is that, when a piece of iron is forged and the per-oxide flies off, the other is the protoxide. The strong affinity of iron for oxygen renders it powerfully tonic.

FERRI POTASSIO TARTRAS.

A tartrate of iron and potash, being precisely the same as *antimonii tartarizatum*. It is an excellent preparation of iron, from its solubility in water. In form of an electuary, it is a most valuable remedy in cases of worms.

FERRI SULPHAS.

This chalybeate combined with purgatives, prevents the debilitating effect consequent upon their continued action. In the process of preparation the water undergoes a partial decomposition by admixture with the acid, which is further increased by applying heat. The oxygen set free unites with the iron,

which combined with the acid, forms sulphate of iron in solution, which is crystallized in the usual way.

HYDRARGYUM CUM CRETA^a.

A protoxide of mercury, with carbonate of lime. It is an useful preparation in mucous disorders of the bowels of children. The chalk prevents the mercury from combining with any acid it meets with, and thus forming a more powerful preparation of the metal.

HYDRARGYRI BINOXIDUM.

The formula for preparing this, or rather the present preparation, is substituted for the hydrargyri oxydum rubrum or calcined mercury. The bichloride of mercury is decomposed by the affinity existing between the hydrogen of the water and the chlorine

which combine, forming an hydrochloric acid. The potash remaining in solution, the oxygen unites with the mercury, forming a bin-oxide.

HYDRARGYRI NITRICO-OXIDUM.

You first have a nitrate of the protoxide, and by applying heat you decompose it, nitrous gas being given off. If it be pure, not a particle should be taken up by boiling it in water, and if heat is applied, there should be nothing given out but oxygen. If adulterated with lead, it is proved by digesting it in acetic acid, which forms an acetate of lead; this will give a black precipitate by adding a solution of sulphuretted hydrogen.

HYDRARGYRI AMMONIO-CHLORIDUM.

This is a submuriate of mercury and ammonia.

HYDRARGYRI CHLORIDUM.

All metals must be oxydated before they can be dissolved by an acid. Calomel and corrosive sublimate are decomposed by a solution of potash—the extent of oxydation is thus proved: the former gives a black oxide and the latter a red one; the proper names for which are protochloride and deutochloride of mercury. The forms for preparing this and the above preparation are changed, without any advantage.

HYDRARGYRI BICHLORIDUM.

Chlorine combines with mercury in two proportions, forming the deutochloride and the protochloride; the former the hydrargyri

oxymurias, and the latter the submurias hydrargyri of the old Pharmacopœia. To increase the solubility of this salt in alcohol, some chloride of sodium may be added.

HYDRARGYRI BISULPHURETUM.

This has a red colour, and is frequently adulterated with dragon's blood, or some other substance of the kind, which however may be detected by alcohol, forming with it a coloured tincture.

HYDRARGYRI SULPHURETUM CUM SULPHURÆ.

This is a protoxide frequently adulterated with ivory black.

HYDRARGYRUM PURIFICATUM.

If mercury be suspected of adulteration, expose a globule of it on a heated iron, and if any dross remains it is impure, and a button of the adulterating metal may be formed on charcoal with the blow-pipe. If it be adulterated with lead, it may be detected by agitating it in water, the lead will soon become oxydated, and affect the transparency of the water ; if with bismuth, dissolve it in nitric acid, and you have a nitrate of mercury and bismuth, which by adding a little water to the solution, the oxide of bismuth will be precipitated in form of a beautiful white powder. If with tin, oxygen combines in two proportions, and forms the protoxide and deutoxide of mercury.

MAGNESIA.

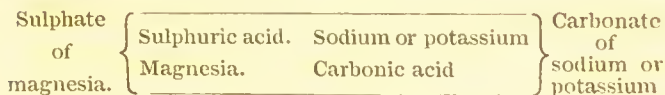
In this process heat decomposes the carbonate of magnesia, and evolves the carbonic acid. Calcined magnesia to be pure, should

be tested in the dark with dilute sulphuric acid, when if effervescence ensues it is not wholly free from carbonic acid.

CARBONATE OF MAGNESIA.

By decomposing a solution of sulphate of magnesia by carbonate of sodium, or carbonate of potassium, a carbonate of magnesia is formed and precipitated. Whilst the sulphuric acid of the sulphate remains in solution with the other base, thus :—

Sulphate of sodium or potassium.



Carbonate of magnesia precipitated.

PLUMBI ACETAS.

Lead is thinly exposed to the action of a stratum of air, in a state of fusion, and is converted into a semi-vitrified oxide. The acetate is here combined with the lead in a

state of protoxide. In combination with opium, in cases of spitting of blood, in small doses, it produces more satisfactory and uniform effects. In combination, they seem to correct each other's action, the opium not acting on the sensorium, nor the lead producing colica pictonum, which is invariably the case in the smallest doses uncombined.

LIQUOR POTASSÆ.

It will be here seen that decomposition takes place by the combination of the carbonic acid with the lime, which is insoluble. The potash remains in solution in the water.

ZINCI SULPHAS.

More properly an acidified sulphate. An excellent preparation combined with ipecacuanha or antimony as an emetic. As a tonic, it stands second to nitrate of silver, which is the most powerful of all.

ALPHABETICAL LIST
OF
SIMPLE AND COMPOUND MEDICINALS,
WITH THE
DOSES, PROPERTIES, AND USES.

The first part of the paper discusses the importance of the study of the history of the English language. It is pointed out that the study of the history of the English language is not only a matter of historical interest, but also a matter of practical importance. The study of the history of the English language is necessary for a full understanding of the English language in its present state. It is also necessary for a full understanding of the English language in its future state. The study of the history of the English language is necessary for a full understanding of the English language in its present state. It is also necessary for a full understanding of the English language in its future state.

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SIMPLE AND COMPOUND MEDICINALS.

ÆTHER.—*Dose.* Children from two to four years, eight drops ; ten years, twenty to thirty drops. Adults thirty drops to one drachm. *Effect.* Antispasmodic, For asthma, cramp, and flatulence.

Æthiop's Mineral.—*Dose.* Children from two to four years, six grains ; ten years, ten to fifteen grains. Adults, fifteen to thirty grains. *Effect.* Alterative. For cutaneous affections.

Almonds, Emuln.—*Dose.* Children from two to four years, table spoonful ; ten years, half a wine glassful. Adults, wine glassful. *Effect.* Demulcent. For strangury cough.

Almonds, Oil of.—*Dose.* Children from two to four years, thirty drops ; ten years, half a drachm, Adults, one to three drachms. *Effect.* Demulcent. For strangury cough.

Aloes, Socotrine.—*Dose.* Children from two to four years, three to six grains ; ten years, five to ten

grains. Adults, ten to twenty grains. *Effect.* Purgative. For obstinate costiveness.

Aloes, Tincture of.—*Dose.* Children from two to four years, one drachm; ten years, one and a half to three drachms. Adults, three to six drachms. *Effect.* Purgative. For obstinate costiveness and worms.

Alum Powder.—*Dose.* Children ten years, one and a half to three grains. Adults, three to ten grains. *Effect.* Astringent. For chronic dysentery.

Amber, Oil of.—*Dose.* Children from two to four, two drops; ten years, five to eight drops. Adults, eight to ten drops. *Effect.* Antispasmodic. For hysteric fits, hooping-cough.

Ammoniac, Gum.—*Dose.* Children ten years, six to ten grains. Adults, ten to fifteen grains. *Effect.* Expectorant. For chronic cough, asthma, &c.

Ammoniac, Milk of.—*Dose.* Children from two to four years, dessert spoonful; ten years, one and a half table spoonful. Adults, three table spoonfuls. *Effect.* Expectorant. For chronic cough, asthma, &c.

Antimonial Powder.—*Dose.* Children from two to four years, two grains; ten years, one and a half to three grains. Adults, three to five grains. *Effect.* Sudorific. For inflammatory fever, pleurisy.

Antimonial Wine (as an emetic).—*Dose.* Chil-

dren from two to four years, one to two drachms ; ten years, two drachms. Adults, two to four drachms. *Effect.* Emetic.

Antimonial Wine (as an alterative).—Dose. Children from two to four years, six drops ; ten years, eight to twelve drops. Adults, twelve to twenty drops. *Effect.* Sudorific. For St. Anthony's fire, cordes of stomach.

Aromatic Confection.—Dose. Children from two to four years, six grains ; ten years, ten to fifteen grains. Adults, fifteen to thirty grains. *Effect.* Astringent and cordial. For purging, cramp.

Assafatida Emulsion.—Dose. Children from two to four years, one tea spoonful ; ten years, one and a half table spoonful. Adult, three table spoonfuls. *Effect.* Antispasmodic. For hysterics, asthma, hooping-cough.

Assafatida, Tincture of.—Dose. Children from two to four years, one drop ; ten years, twenty to thirty drops. Adults, thirty to sixty drops. *Effect.* Antispasmodic. For hysterics, asthma, hooping-cough.

Assafatida, Volatile Spirit of.—Dose. Children from two to four years, four drops ; ten years, ten to twenty drops. Adults, twenty to forty drops. *Effect.* Antispasmodic. For hysterics, and fainting.

Assafatida Pill.—Dose. Children from ten years,

six to ten grains. Adults, ten to fifteen grains. *Effect.* Antispasmodic. For hysterics and fainting.

Balsam of Peru.—*Dose.* Children, ten years, three to five drops. Adults, five to ten drops. *Effect.* Stimulant. For flatulence, asthma.

Balsam Trumatic.—*Dose.* Children, ten years, twelve to twenty drops. Adults, twenty to forty drops. *Effect.* Stimulant. For flatulence, asthma.

Balsam of Tolu, Tincture of.—*Dose.* Children, ten years, twenty to thirty drops. Adults, thirty to sixty drops. *Effect.* Stimulant and pectoral. For flatulence, asthma.

Bark, Peruvian Powder.—*Dose.* Children from two to four years, six grains; ten years, fifteen to twenty grains. Adults, twenty to sixty grains. *Effect.* Tonic. For ague, indigestion, weakness.

Bark, Decoction of.—*Dose.* Children from two to four years, one table spoonful; ten years, one and a half to three table spoonfuls. Adults, three to four table spoonfuls. *Effect.* Tonic. For relaxation and weakness.

Bark, Essential Salt of.—*Dose.* Children from two to four years, two grains; ten years, three to five grains. Adults, five to ten grains. *Effect.* Tonic. For relaxation and weakness.

Bark, Tincture of.—*Dose.* Children, ten years, one to two drachms. Adults, two to four drachms. *Effect.* Tonic. For relaxation and weakness.

Bark, Tincture of Volatile.—*Dose.* Children, ten years, one or two drachms. Adults, two to four drachms. *Effect.* Stimulant and pectoral. For relaxation and weakness.

Bark, Tincture of, Huxham's.—*Dose.* Children, ten years, one-half to one drachm. Adults, one to two drachms. *Effect.* Stimulant and pectoral. For indigestion and heartburn.

Basilic Powder.—*Dose.* Children from two to four years, six grains ; ten years, ten to twenty grains. Adults, twenty to twenty-five grains. *Effect.* Vermifuge and purgative. For worms, costiveness, dropsy.

Calomel.—*Dose.* Children from two to four years, one grain ; ten years, one to four grains. Adults, one to ten grains. *Effect.* Alterative and aperient. For bilious affection, fever, &c.

Camphor.—*Dose.* Children from two to four years, one grain ; ten years, one to two grains. Adults, two to four grains. *Effect.* Antispasmodic. For hooping-cough, convulsive fits.

Camphor, Julep of.—*Dose.* Children from two to four years, three drachms ; ten years, one to two table spoonfuls. Adults, two to four table spoonfuls. *Effect.* Antispasmodic and febrifuge. For nervous fever, convulsive fits.

Camella, Alba Powder.—*Dose.* Children, ten years, one and a half to three grains. Adults, four

to three grains. *Effect.* Stomachic. For indigestion, flatulence.

Canella, Tincture of.—*Dose.* Children, ten years, one-half to one tea spoonful. Adults, one to two tea spoonfuls. *Effect.* Stomachic. For indigestion, flatulence.

Cardamom Seeds, Tincture of.—*Dose.* Children, ten years, one to two drachms. Adults, two to three drachms. *Effect.* Stimulant. For indigestion, flatulence, and cramp.

Cardamom Seeds, Compound Tincture of.—*Dose.* Children, ten years, one to two drachms. Adults, two to four drachms. *Effect.* Stomachic. For indigestion, flatulence, and cramp.

Castor, Powdered.—*Dose.* Children from two to four years, two grains; ten years, two and a half to five grains. Adults, five to ten grains. *Effect.* Antispasmodic. For convulsive fits, nervousness.

Castor, Tincture of.—*Dose.* Children from two to four years, twenty drops; ten years, one-half to one drachm. Adults, one to two drachms. *Effect.* Antispasmodic. For convulsive fits, nervousness.

Castor Oil (cold, expressed, or cold drawn).—*Dose.* Children from two to four years, two drachms; ten years, two to four drachms. Adults, four to eight drachms. *Effect.* Purgative. For colic, costiveness.

Cascarilla Powder.—*Dose.* Children from two to four years, four grains; ten years, five to ten grains.

Adults, ten to twenty grains. *Effect.* Stomachic. For indigestion, weakness.

Cascarilla, Tincture of.—*Dose.* Children from two to four years, twenty drops ; ten years, one-half to one drachm. Adults, one to three drachms. *Effect.* Stomachic. For indigestion, weakness.

Catechu, Tincture of.—*Dose.* Children from two to four years, ten drops ; ten years, one-half to one tea spoonful. Adults, one to two tea spoonfuls. *Effect.* Astringent. For chronic looseness, flooding.

Chalk, Prepared.—*Dose.* Children from two to four years, six grains ; ten years, five to ten grains. Adults, ten to fifteen grains. *Effect.* Astringent. For looseness, acidity.

Camomile Flowers, Powder of.—*Dose.* Children from two to four years, six grains ; ten years, five to ten grains. Adults, ten to twenty grains. *Effect.* Stomachic and vermifuge. For indigestion, worms, &c.

Camomile and Ginger, Tincture of.—*Dose.* Children, ten years, five to twenty drops. Adults, ten to forty drops. *Effect.* Stomachic. For gout, cramp in the stomach.

Cinnamon Powder.—*Dose.* Children from two to four years, two grains ; ten years, three to five grains. Adults, five to ten grains. *Effect.* Stomachic. For indigestion, flatulence, &c.

Cinnamon, Essence of.—*Dose.* Children from two to four years, one drop ; ten years, two to three drops, Adults, three to ten drops. *Effect.* Stimulant. For flatulency, colicky pains.

Cinnamon, Tincture of.—*Dose.* Children from two to four years, twenty drops ; ten years, two to three drachms. Adults, three to four drachms. *Effect.* Astringent. For looseness.

Calumba, Powder and Root.—*Dose.* Children from two to four years, four grains ; ten years, five to ten grains. Adults, ten to twenty grains. *Effect.* Stomachic. For indigestion, chronic looseness.

Calumba, Tincture of.—*Dose.* Children from two to four years, fifteen drops ; ten years, one-half to one drachm. Adults, one to three drachms. *Effect.* Stomachic. For indigestion, chronic looseness.

Crabs' Claws, Prepared.—*Dose.* Children from two to four years, ten grains ; ten years, ten to fifteen grains. Adults, fifteen to twenty grains. *Effect.* Astringent. For purging, heartburn.

Creta, powdered with Opium.—*Dose.* Children from two to four years, four grains ; ten years, five to ten grains. Adults, ten to twenty grains. *Effect.* Astringent. For obstinate purging and dysentery.

Contrainerva Powder.—*Dose.* Children from two to four years, six grains ; ten years, ten to twenty grains. Adults, twenty to forty grains. *Effect.* Sudorific. For recent colds, rheumatism.

Contrayerva, Compound.—*Dose.* Children from two to four years, eight grains ; ten years, fifteen to thirty grains. Adults, thirty to forty grains. *Effect.* Sudorific and astringent. For diarrhœa.

Cream of Tartar.—*Dose.* Children from two to four years, twenty grains ; ten years, one-half to one drachm. Adults, one to four drachms. *Effect.* Aperient and alterative. For inflammation, eruption of the skin, &c.

Colocynth, or Bitter Apple Pill Compound.—*Dose.* Children, ten years, five to ten grains. Adults, ten to twenty grains. *Effect.* Purgative. For costiveness.

Colocynth Extract, Compound.—*Dose.* Children, ten years, two to five grains. Adults, five to ten grains. *Effect.* Purgative. For costiveness.

Colocynth, Extract Powder.—*Dose.* Children, ten years, two to three grains. Adults, four to six grains. *Effect.* Purgative. For costiveness.

Dover's Powder.—*Dose.* Children from two to four years, three grains ; ten years, five to ten grains. Adults, ten to twenty grains. *Effect.* Sudorific and anodyne. For rheumatism, recent colds, &c.

Elixir of Vitriol.—*Dose.* Children, ten years, five to ten drops. Adults, ten to twelve drops. *Effect.* Stomachic. For indigestion, flatulence, &c.

Elcctuary, Lenitive.—*Dose.* Children from two to four years, half a drachm ; ten years, one to two

drachms. Adults, two to three drachms. *Effect.* Gentle aperient. For costiveness.

Epsom Salts.—*Dose.* Children from two to four years, one drachm; ten years, two to five drachms. Adults, four to eight drachms. *Effect.* Aperient. For costiveness.

Foxglove Powder.—*Dose.* Children from two to four years, one-sixteenth of a grain; ten years, one quarter of a grain. Adults, half to two grains. *Effect.* Diuretic and sedative. For dropsy.

Foxglove, Tincture of.—*Dose.* Children from two to four years, five drops; ten years, five to ten drops. Adults, ten to forty drops. *Effect.* Sedative. For consumption, palpitation.

Gentian, Tincture of.—*Dose.* Children from two to four years, twenty drops; ten years, one-half to one drachm. Adults, one to two drachms. *Effect.* Stomachic. For indigestion, flatulence, &c.

Gentian, Extract of.—*Dose.* Children from two to four years, three grains; ten years, three to five grains. Adults, five to ten grains. *Effect.* Stomachic. For indigestion, flatulence, &c.

Ginger Powder.—*Dose.* Children from two to four years, five grains; ten years, ten to twenty grains. Adults, twenty to sixty grains. *Effect.* Stimulant. For gout, indigestion, flatulence.

Ginger, Lozenges of.—*Dose.* Children from two

to four years, one to two ; ten years, two to four. Adults, four to ten. *Effect.* Stimulant. For flatulency.

Ginger, Tincture of.—*Dose.* Children from two to four, half a drachm ; ten years, one-half to one drachm. Adults, one to two drachms. *Effect.* Stimulant. For flatulency.

Guaiac Gum.—*Dose.* Children from two to four years, three grains ; ten years, one and a half to six grains. Adults, three to fifteen grains. *Effect.* Stimulant and sudorific. For chronic rheumatism, gout.

Guaiac, Volatile Tincture.—*Dose.* Children from two to four years, half a drachm ; ten years, one-half to one drachm. Adults, one to three drachms. *Effect.* Stimulant and sudorific. For chronic rheumatism, gout.

Hartshorn, Spirit of.—*Dose.* Children from two to four years, six drops ; ten years, ten to twenty drops. Adults, twenty to forty drops. *Effect.* Stimulant. For hysterics, convulsions.

Hartshorn Powder, Burnt Prepared.—*Dose.* Children from two to four years, ten grains ; ten years, ten to twenty grains. Adults, twenty to forty grains. *Effect.* Antispasmodic. For purging, acidity, heartburn.

Hoffman's Anodyne Liquor.—*Dose.* Children from two to four years, three drops ; ten years, fifteen

to thirty drops. Adults, thirty to forty drops.
Effect. Astringent. For nervous fever, asthma, hysterics.

Hemlock, Powdered.—*Dose.* Children from two to four years, one grain; ten years, one to two grains. Adults, two to three grains. *Effect.* Sedative. For whooping-cough, cancer.

Hemlock, Extract of.—*Dose.* Children from two to four years, half a grain; ten years, one to two grains. Adults two to three grains. *Effect.* Sedative. For whooping-cough, cancer.

Hiera Picra.—*Dose.* Children, ten years, six to fifteen grains. Adults, fifteen to twenty grains. *Effect.* Purgative and stomachic. For costiveness, flatulency.

Hiera Picra, Tincture of.—*Dose.* Children from two to four years, thirty drops; ten years, one to two drachms. Adults, two to four drachms. *Effect.* Purgative, stomachic, and vermifuge. For costiveness and worms.

Iodine, Tincture of.—*Dose.* Children, ten years, five to ten drops. Adults, ten to thirty drops. *Effect.* Alterative. For scrofula and wen.

Jalap Powder and Root.—*Dose.* Children, ten years, ten to twenty grains. Adults, twenty to thirty grains. *Effect.* Purgative. For costiveness.

Jalap, Tincture of.—*Dose.* Children, ten years,

one to two grains. Adults, two to four grains.
Effect. Purgative. For costiveness.

Ipecacuanha Powder and Root.—*Dose.* Children ten years, ten to twenty grains. Adults, twenty to thirty grains. *Effect.* Emetic.

Ipecacuanha Wine.—*Dose.* Children from two to four years, two drachms; ten years, two to four drachms. Adults, four to eight drachms. *Effect.* Emetic. For costiveness.

Kino Gum, Tincture of.—*Dose.* Children from two to four years, fifteen drops; ten years, one to two drachms. Adults, two to three drachms, *Effect.* Astringent. For looseness.

Lavender, Compound Spirit of.—*Dose.* Children from two to four years, fifteen drops; ten years, twenty to thirty drops. Adults, thirty to eighty drops. *Effect.* Cordial. For fainting, or lowness of spirits.

Logwood, Decoction of.—*Dose.* Children from two to four years, one table spoonful; ten years, two table spoonfuls. Adults, a wine glassful. *Effect.* Astringent. For looseness, dysentery.

Logwood, Extract of.—*Dose.* Children from two to four years, four grains; ten years, five to ten grains. Adults, ten to twenty grains. *Effect.* Astringent. For looseness, dysentery.

Madder, Extract of.—*Dose.* Children from two

to four years, five grains ; ten years, five to ten grains. Adults, ten to twenty grains. *Effect.* Deobstruent and tonic. For scrofula.

Magnesia.—*Dose.* Children from two to four years, ten grains ; ten years, ten to twenty grains. Adults, twenty to forty grains. *Effect.* Absorbent and aperient. For heart-burn and acidity.

Magnesia, Calcined.—*Dose.* Children from two to four years, ten grains ; ten years, ten to twenty grains. Adults, twenty to forty grains. *Effect.* Absorbent and aperient. For heart-burn, acidity.

Manna, Best.—*Dose.* Children from two to four years, one drachm ; ten years, one and a half to three drachms. Adults, three to six drachms. *Effect.* Gentle aperient. For costiveness.

Mercurial Pill.—*Dose.* Children, ten years, one and a half to three grains. Adults, three to twelve grains. *Effect.* Alterative. For cutaneous affections, &c.

Mercury, Calcined.—*Dose.* Children, ten years, one-half to one grain. Adults, one to two grains. *Effect.* Alterative. For cutaneous affections, &c.

Mercury, with Chalk.—*Dose.* Children from two to four years, four grains ; ten years, two and a half to five grains. Adults, five to ten grains. *Effect.* Alterative. For scald head, euphony, &c.

Mistletoe Powder.—*Dose.* Children from two to

four years, ten grains ; ten years, ten to twenty grains. Adults, twenty to sixty grains. *Effect.* Tonic. For epileptic fits.

Mithridate.—*Dose.* Children from two to four years, eight grains ; ten years, ten to fifteen grains. Adults, fifteen to twenty grains. *Effect.* Astringent. For purging, dysentery, &c.

Musk.—*Dose.* Children from two to four years, two grains ; ten years, two and a half grains. Adults, five to twenty grains. *Effect.* Antispasmodic. For convulsions, lock jaw, &c.

Muriatic Acid.—*Dose.* Children from two to four years, six drops ; ten years, five to ten drops. Adults, ten to thirty drops. *Effect.* Alterative. For scrofula, cutaneous eruptions.

Myrrh Powder.—*Dose.* Children from two to four years, three grains ; ten years, two and a half to five grains. Adults, five to ten grains. *Effect.* Deobstruent. For weakness.

Myrrh, Tincture of.—*Dose.* Children from two to four years, fifteen drops ; ten years, one-half to one drachm. Adults, one to two drachms. *Effect.* Deobstruent. For weakness.

Myrrh, Emulsion of.—*Dose.* Children from two to four, two drachms ; ten years, one to two table spoonfuls. Adults, two to three table spoonfuls.

Effect. Deobstruent, expectorant. For weakness and chronic cough.

Natron, Prepared.—Dose. Children from two to four years, five grains ; ten years, eight grains. Adults, ten grains. *Effect.* Antacid. For heart-burn and acidity.

Nitre Powder, Purified.—Dose. Children from two to four years, four grains ; ten years, two and a half to five grains. Adults, five to twenty grains. *Effect.* Diuretic and febrifuge. For strangury.

Nitre, Sweet, Spirit of.—Dose. Children from two to four years, ten drops ; ten years, ten to twenty drops. Adults, twenty to sixty drops. *Effect.* Diuretic and febrifuge. For strangury.

Nitric Acid.—Dose. Children from two to four years, four drops ; ten years, six to twelve drops. Adults, twelve to thirty drops. *Effect.* Tonic. For diabetes, scrofula.

Nutmeg, Spirit of.—Dose. Children from two to four years, one drachm ; ten years, two to four drachms. Adults, four to six drachms. *Effect.* Carminative. For flatulence, cramp.

Opiate Confection.—Dose. Children from two to four years, five grains ; ten years, five to ten grains. Adults, ten to twenty grains. *Effect.* Carminative and opiate. For purging, cholick, &c.

Opium Purified.—Dose. Children, ten years, one-

half to one grain. Adults, one to two grains. *Effect.* Anodyne. For restlessness, acute pains.

Opium, Tincture of, or Laudanum. *Dose.* Children from two to four years, three drops ; ten years, five to ten drops. Adults, ten to thirty drops. *Effect.* Anodyne. For restlessness, acute pains.

Oyster Shells Prepared.—*Dose.* Children from two to four years, eight grains ; ten years, five to ten grains. Adults, ten to twenty grains. *Effect.* Absorbent and astringent. For looseness, heartburn.

Paregoric Elixir.—*Dose.* Children from two to four years, twenty drops ; ten years, one-half to one drachm. Adults, one to two drachms. *Effect.* Anodyne. For cough, asthma, cramp.

Peppermint, Essence of.—*Dose.* Children from two to four years, one drop ; ten years, one and a half to three drops. Adults, three to six drops. *Effect.* Carminative. For colicky pains, flatulency, &c.

Poppies, White, Extract of.—*Dose.* Children from two to four years, one grain ; ten years, two and a half to five grains. Adults, five to ten grains. *Effect.* Anodyne. For spasms, acute pains, ague.

Poppies, White, Syrup of.—*Dose.* Children from two to four years, a tea spoonful ; ten years, one to two tea spoonfuls. Adults, two to four drachms. *Effect.* Anodyne. For spasms, acute pains, ague.

Quassia, Tincture of.—*Dose.* Children from two to four years, ten drops ; ten years, ten to thirty drops. Adults, thirty to sixty drops. *Effect.* Stomachic. For indigestion, flatulency.

Rhatany Powder.—*Dose.* Children from two to four years, five grains ; ten years, five to ten grains. Adults, ten to forty grains. *Effect.* Tonic. For ague, diabetes.

Rhatany, Tincture of.—*Dose.* Children from two to four years, twenty drops ; ten years, one to two drachms. Adults, two to four drachms. *Effect.* Stomachic. For debility.

Rhatany, Compound Tincture of.—*Dose.* Children from two to four years, twenty drops ; ten years, one to two drachms. Adults, two to four drachms. *Effect.* Stomachic and cordial. For debility.

Rhatany, Aromatic Tincture of.—*Dose.* Children from two to four years, twenty drops ; ten years, one to two drachms. Adults, two to four drachms. *Effect.* Stomachic and cordial. For debility.

Rhubarb Powder, Turkey.—*Dose.* Children from two to four years, five grains ; ten years, ten to twenty grains. Adults, twenty to thirty grains. *Effect.* Aperient. For costiveness.

Rhubarb, Tincture of.—*Dose.* Children, ten years, two to four drachms. Adults, four to six drachms. *Effect.* Aperient and carminative. For costiveness, colick, &c.

Rhubarb Powder.—*Dose.* Children, ten years, half to one drachm. Adults, one to two drachms. *Effect.* Aperient and stomachic. For indigestion and flatulence.

Rhubarb Lozenges, with Ginger.—*Dose.* Adults, any number. *Effect.* Stomachic. For indigestion and flatulence.

Rochelle Salt.—*Dose.* Children from two to four years, one drachm; ten years, two to three drachms. Adults, three to six drachms. *Effect.* Aperient. For costiveness.

Roses, Infusion of.—*Dose.* Children from two to four years, three drachms; ten years, one-half to one ounce. Adults, one to two ounces. *Effect.* Stomachic and astringent. For indigestion.

Roses, Conserve of.—*Dose.* Children from two to four years, half a drachm; ten years, one-half to one drachm. Adults, one to two drachms. *Effect.* Stomachic and pectoral. For cough.

Saffron Hay, Tincture of.—*Dose.* Children from two to four years, forty drops; ten years, one-half to one drachm. Adults, one to two drachms. *Effect.* Cordial. For lowness of spirits.

Saffron, Syrup of.—*Dose.* Children from two to four years, a tea spoonful; ten years, one to two drachms. Adults, two to three drachms. *Effect.* Cordial. For lowness of spirits.

Salts, Glauber's.—*Dose.* Children from two to four years, one drachm ; ten years, three to six drachms. Adults, six to twelve drachms. *Effect.* Purgative. For costiveness, &c.

Salts, Epsom, Purified.—*Dose.* Children from two to four years, one drachm ; ten years, three to six drachms. Adults, six to eight drachms. *Effect.* Purgative, for costiveness, &c.

Salts, Cheltenham.—*Dose.* Children from two to four years, one drachm ; ten years, three to six drachms. Adults, six to twelve drachms. *Effect.* Purgative. For costiveness, &c.

Salts, Polychrest.—*Dose.* Children, ten years, one-half to one drachm. Adults, one to three drachms. *Effect.* Cooling aperient. For feverish heat.

Salts, Tasteless.—*Dose.* Children from two to four years, one drachm ; ten years, three to six drachms. Adults, six to twelve drachms. *Effect.* Gentle aperient. For costiveness, &c.

Salts of Tartar.—*Dose.* Children from two to four years, four grains ; ten years, five to ten grains. Adults, ten to twenty grains. *Effect.* Alkaline. For heartburn, rickets.

Salt of Wormwood.—*Dose.* Children from two to four years, four grains ; ten years, five to ten grains. Adults, ten to twenty grains. *Effect.* Alkaline. For heart-burn, rickets.

Sarsaparilla Powder.—*Dose.* Children from two to four years, five grains ; ten years, ten to twenty grains. Adults, twenty to sixty grains. *Effect.* Alterative. For scrofula, &c.

Sarsaparilla, Compound Decoction.—*Dose.* Children from two to four years, one ounce ; ten years, one and a half to three ounces. Adults, three to four ounces. *Effect.* Alterative. For scrofula, &c.

Scammony Powder.—*Dose.* Children from two to four years, three grains ; ten years, five to ten grains. Adults, ten to twenty grains. *Effect.* Strong purgative. For obstinate costiveness.

Scammony, Compound Powder.—*Dose.* Children from two to four years, five grains ; ten years, seven and a half to fifteen grains. Adults, fifteen to twenty grains. *Effect.* Strong purgative. For obstinate costiveness.

Scammony, Compound Powder with Calomel.—*Dose.* Children from two to four years, four grains ; ten years, seven and a half to fifteen grains. Adults, fifteen to twenty-five grains. *Effect.* Strong purge and vermifuge. For obstinate costiveness, worms, and dropsy.

Senna Leaves, Infusion of.—*Dose.* Children from two to four years, three drachms ; ten years, one to two ounces. Adults, two to three ounces. *Effect.* Purgative. For costiveness and worms.

Senna Leaves, Tincture of.—*Dose.* Children ten years, three to six drachms. Adults, six to twelve drachms. *Effect.* Purgative. For costiveness and colick.

Soda Bicarbonate.—*Dose.* Children from two to four years, ten grains; ten years, ten to twenty grains. Adults, twenty to forty grains. *Effect.* Antacid. For heart-burn and acidity.

Soluble Tartar.—*Dose.* Children from two to four years, one drachm; ten years, one to two drachms. Adults, two to six drachms. *Effect.* Purgative. For costiveness and piles.

Spermaceti Powder.—*Dose.* Children from two to four years, twenty grains; ten years, one-half to one drachm. Adults, one to two drachms. *Effect.* Demulcent. For recent cough.

Spirit, Mindererus.—*Dose.* Children from two to four years, one drachm; ten years, one to two drachms. Adults, two to four drachms. *Effect.* Sudorific and cooling. For recent fever, pleurisy.

Spirit of Vitriol, Sweet.—*Dose.* Children from two to four years, eight drops; ten years, ten to twenty drops. Adults, twenty to forty drops. *Effect.* Antispasmodic and carminative. For nervous debility, flatulence.

Spirit, Sal Ammoniac.—*Dose.* Children from two to four years, six drops; ten years, seven and a half

to fifteen drops. Adults, fifteen to thirty drops. *Effect.* Stimulant. For hysterical fainting fits.

Spirit, Sal Volatile.—*Dose.* Children from two to four years, six drops; ten years, ten to twenty drops. Adults, twenty to forty drops. *Effect.* Stimulant. For hysterical fainting fits.

Syrup of Poppies.—*Dose.* Children from two to four years, one drachm; ten years, one to two drachms. Adults, two to four drachms. *Effect.* Anodyne. For coughs, restless fever.

Syrup of Buckthorn.—*Dose.* Children from two to four years, one drachm; ten years, one to two drachms. Adults, two to four drachms. *Effect.* Cathartic. For costiveness.

Syrup of Ginger.—*Dose.* Children from two to four years, one drachm; ten years, one to two drachms. Adults, two to three drachms. *Effect.* Carminative. For flatulence, cramp.

Sponge, Burnt.—*Dose.* Children from two to four years, ten grains; ten years, ten to twenty grains. Adults, twenty to thirty grains. *Effect.* Alterative. Tonic and antacid.

Sponge, Lozenges of.—*Dose.* Children from two to four years, one; ten years, one to two. Adults, one to three. *Effect.* Alterative. Tonic and antacid.

Squill, Powder.—*Dose.* Children from two to

four, half a grain ; ten years, one-half to one grain. Adults, one to two grains. *Effect.* Expectorant and diuretic. For dropsy, chronic cough.

Squill Oxymel.—*Dose.* Children from two to four years, one drachm ; ten years, one to two drachms. Adults, two to four drachms. *Effect.* Expectorant and diuretic. For dropsy, chronic cough.

Squill, Tincture of.—*Dose.* Children from two to four years, ten drops ; ten years, eight to fifteen drops. Adults, fifteen to thirty drops. *Effect.* Expectorant and diuretic. For dropsy, chronic cough.

Squill, Lozenges of.—*Dose.* Children from two to four, one ; ten years, one to three. Adults, three to six. *Effect.* Expectorant and diuretic. For dropsy, chronic cough.

Steel, Muriated Tincture of.—*Dose.* Children from two to four years, four drops ; ten years, five to ten drops. Adults, ten to thirty drops. *Effect.* Tonic. For rickets, worms, &c.

Steel, Wine of.—*Dose.* Children from two to four years, one drachm ; ten years, one and a half to three drachms. Adults, three to six drachms. *Effect.* Tonic, for rickets, worms, &c.

Steel, Salt, or Copperas.—*Dose.* Children from two to four years, half a grain ; ten years, one-half to one grain. Adults, one to three grains. *Effect.* Tonic. For rickets, worms, &c.

Steel, Prepared.—*Dose.* Children from two to four years, two grains ; ten years, six to ten grains. Adults, ten to forty grains. *Effect.* Tonic. For rickets, worms, &c.

Steel, Red Sulphate of.—*Dose.* Children from two to four years, one to two grains ; ten years, one and a half to three grains. Adults, three to twelve grains. *Effect.* Tonic. For rickets, worms, &c.

Sulphur, Flowers of.—*Dose.* Children from two to four years, ten grains ; ten years, one-half to one drachm. Adults, one to two drachms. *Effect.* Alterative and aperient. For eruptions, piles, &c.

Sulphur, Milk of.—*Dose.* Children from two to four years, ten grains ; ten years, one-half to one drachm. Adults, one to two drachms. *Effect.* Alterative and aperient. For eruptions, piles, &c.

Tartar Emetic.—*Dose.* Children from two to four years, quarter grain ; ten years, one-half to one grain. Adults, one to two grains. *Effect.* Emetic. For fever and cutaneous diseases.

Tin Powder.—*Dose.* Children from two to four years, eight grains ; ten years, ten to twenty grains. Adults, twenty to forty grains. *Effect.* Vermifuge. For worms.

Tincture of Aloes.—*Dose.* Children from two to four years, one drachm ; ten years, one and a half to

three drachms. Adults, three to six drachms. *Effect.* Purgative. For costiveness, worms.

Tincture of Assafœtida.—*Dose.* Children from two to four years, five drops ; ten years, twenty to thirty drops. Adults, thirty to sixty drops. *Effect.* Antispasmodic. For hysterics, hooping-cough.

Tincture of Benzoin, or Friar's Balsam.—*Dose.* Children from two to four years, six drops ; ten years, eight to fifteen drops. Adults, fifteen to thirty drops. *Effect.* Stimulant and expectorant. For flatulence, asthma.

Tincture of Buchu Leaves.—*Dose.* Children ten years, one to two tea spoonfuls. Adults, two to three tea spoonfuls. *Effect.* Anti-irritant, &c. For irritation of bladder.

Tincture of Cantharides.—*Dose.* Children from two to four years, five drops ; ten years, five to ten drops. Adults, ten to thirty drops. *Effect.* Diuretic and stimulant.

Tincture of Cardamoms.—*Dose.* Children from two to four years, half a drachm ; ten years, one to two drachms. Adults, two to four drachms. *Effect.* Stomachic. For indigestion, flatulence.

Tincture of Compound Cardamoms.—*Dose.* Children from two to four years, half a drachm ; ten years, one to two drachms. Adults, two to four drachms. *Effect.* Stomachic. For indigestion, flatulence.

Tincture of Cascarilla.—*Dose.* Children from

two to four years, fifteen drops ; ten years, one-half to one drachm. Adults, one to three drachms.

Effect. Stomachic. For indigestion, flatulence.

Tincture of Catechu.—*Dose.* Children from two to four years, fifteen drops ; ten years, one-half to one drachm. Adults, one to two drachms. *Effect.* Astringent and stomachic. For purgings, relaxation.

Tincture of Calumba.—*Dose.* Children from two to four years, twenty drops ; ten years, one-half to one drachm. Adults, one to two drachms. *Effect.* Stomachic. For indigestion, &c.

Tincture of Peruvian Bark.—*Dose.* Children, ten years, one to two drachms. Adults, two to four drachms. *Effect.* Stomachic. For indigestion, &c.

Tincture of Huxham's Bark.—*Dose.* Children, ten years, one to two drachms. Adults, two to four drachms. *Effect.* Stomachic and cordial. For indigestion, &c.

Tincture of Bark Volatile.—*Dose.* Children, ten years, one-half to one drachm. Adults, one to two drachms. *Effect.* Stomachic and cordial. For indigestion, &c.

Tincture of Iron, Muriated.—*Dose.* Children from two to four years, six drops ; ten years, five to ten drops. Adults, ten to thirty drops. *Effect.* Tonic. For rickets, worms, &c.

Tincture of Gentian.—*Dose.* Children, ten years,

one to two drachms. Adults, two to three drachms. *Effect.* Stomachic. For indigestion, flatulence.

Tincture of Guaiac Gum.—*Dose.* Children, ten years, fifteen to thirty drops. Adults, thirty to sixty drops. *Effect.* Stimulant. For rheumatism.

Tincture of Guaiac Gum, Volatile.—*Dose.* Children, ten years, one-half to one drachm. Adults, one to two drachms. *Effect.* Stimulant and sudorific. For rheumatism, &c.

Tincture of Jalap.—*Dose.* Children from two to four years, half a drachm; ten years, one to two drachms. Adults, two to four drachms. *Effect.* Brisk purgative. For obstinate costiveness.

Tincture of Lavender, Compound.—*Dose.* Children, ten years, fifteen to thirty drops. Adults, thirty to eighty drops. *Effect.* Cordial. For lowness of spirits, fainting.

Tincture of Myrrh, Compound.—*Dose.* Children, ten years, one-half to one drachm. Adults, one to two drachms. *Effect.* Tonic and purgative.

Tincture of Opium, Compound.—*Dose.* Children, ten years, five to ten drops. Adults, ten to thirty drops. *Effect.* Anodyne and expectorant. For spasms, pains, &c.

Tincture of Opium, Acetic.—*Dose.* Children, from two to four years, four drops; ten years, ten to twenty drops. Adults, twenty to forty drops.

Effect. Anodyne and expectorant. For spasms, coughs, &c.

Tincture of Rhatany Root.—*Dose.* Children from two to four years, thirty drops ; ten years, one to two drachms. Adults, two to four drachms.

Effect. Stomachic. For indigestion, &c.

Tincture of Rhatany, Compound.—*Dose.* Children, ten years, one to two drachms. Adults, two to four drachms. *Effect.* Stomachic and cordial. For indigestion, &c.

Turpentine, Venice.—*Dose.* Children, ten years, five to ten grains. Adults, ten to fifteen grains.

Effect. Diuretic, &c.

Turpentine, Spirit of.—*Dose.* Children, ten years, ten to fifteen drops. Adults, fifteen to twenty drops. *Effect.* Diuretic, &c.

Turpentine, Chio.—*Dose.* Children, ten years, six to ten grains. Adults, ten to fifteen grains.

Effect. Diuretic, &c.

Valerian Powder and Root.—*Dose.* Children from two to four years, six grains ; ten years, ten to twenty grains. Adults, twenty to thirty grains.

Effect. Anti-nervous. For nervous headache.

Valerian, Tincture of.—*Dose.* Children from two to four years, twenty drops ; ten years, one-half to one drachm. Adults, one to three drachms. *Effect.* Anti-nervine. For nervous headache.

Valerian, Volatile, Tincture of.—*Dose.* Children, ten years, twenty to forty drops. Adults, forty to eighty drops. *Effect.* Anti-nervine. For lowness of spirits, &c.

Vitriolic Acid, Diluted.—*Dose.* Children from two to four years, four drops; ten years, four to eight drops. Adults, eight to fifteen drops. *Effect.* Stomachic. For indigestion, flatulence.

Volatile Spirit of Assafætida.—*Dose.* Children from two to four years, six drops; ten years, ten to twenty drops. Adults, twenty to forty drops. *Effect.* For hysterical fainting fits.

Wormwood, Conserve of.—*Dose.* Children from two to four years, half a drachm; ten years, one-half to one drachm. Adults, one to two drachms. *Effect.* Stomachic and vermifuge. For indigestion, flatulence, worms, &c.

Wormwood, Salt of.—*Dose.* Children from two to four years, four grains; ten years, eight to fifteen grains. Adults, fifteen to twenty grains. *Effect.* Alkaline. For heart-burn, rickets, &c.

Wine, Antimonial.—*Dose.* Children from two to four years, two drachms; ten years, three to four drachms. Adults, four to eight drachms. *Effect.* Emetic.

Wine of Ipecacuanha.—*Dose.* Children from two to four years, four drachms; ten years, four to six

drachms. Adults, six to eight drachms. *Effect.* Emetic.

Wine of Rhubarb.—*Dose.* Children, ten years, three to six drachms. Adults, six to twelve drachms. *Effect.* Aperient. For costiveness, indigestion.

Wine of Steel.—*Dose.* Children from two to four years, one drachm; ten years, one and a half to three drachms. Adults, three to six drachms. *Effect.* Tonic.



NEW MEDICINES.

Doses.

Alcoholic Extract of Cantharides . . .	
Lupuline	4 to 6 grains
Nux Vomica . . .	$\frac{1}{4}$ to 2 ditto
Brucine	
Conitine	1 grain
Croton Tiglium	$\frac{1}{2}$ to 2 grains
Oil of	$\frac{1}{2}$ to 1 drop
Tincture of	20 to 30 ditto
Delphine	
Emetine	1 grain equal to 6 of Ipecacuanha
Ergot of Rye	
Essential Oil of Bitter Almonds	
Extract of Colchicum	1 grain
Gentianine	1 grain
Hydriodate of Potash	1 to 15 grains
Iodine	
Tincture of	10 to 60 drops
Laurel Water	20 to 40 ditto
Lupuline	10 grains
Saturated Tincture of	30 to 40 drops

Morphia	$\frac{1}{8}$ to $\frac{1}{4}$ grain
Acetate of	$\frac{1}{8}$ to $\frac{1}{4}$ ditto
Sulphate of	$\frac{1}{8}$ to $\frac{1}{4}$ ditto
Prussic Acid	
Quinine	$\frac{1}{2}$ to 4 grains
Sulphate of	$\frac{1}{2}$ to 4 grains
Strichnine	$\frac{1}{8}$ to $\frac{1}{4}$ grain
Veratrine	1-16th of a gr.

FLUID MEASURE.

1 oz. is equal to 2 table spoonfuls.

1 table spoonful is equal to 4 tea spoonfuls.

1 drachm or 1 tea spoonful is equal to 60 grains.

WEIGHT.

1 drachm is equal to 60 grains.

1 scruple is equal to 20 grains.

THE FOLLOWING IS THE RULE FOR ADMINISTERING
MEDICINES, ACCORDING TO THOMPSON'S CON-
SPECTUS:—

Age.	Doses.
For an adult, suppose the dose to be one or 1 drachm,	
Under 1 year	will require only 1-12th 5 grains
2 $\frac{1}{8}$ 8 grains
3 1-6th 10 grains
4 $\frac{1}{4}$ 15 grains
7 $\frac{1}{3}$ 1 scruple
14 $\frac{1}{2}$ $\frac{1}{2}$ drachm
20 $\frac{2}{3}$ 2 scruples
Above 21	the full dose..... 1 1 drachm
65	the inverse gradation of the above.

N.B.—This is an excellent table for regulating the doses of medicines : a mixture, powder, pill, or draught, may be proportioned to a nicety by attention to the above rule.

TEMPERATURE OF BATHS (THOMPSON).

The hot bath (balneum calidum) from 90 to 100 deg.

The tepid bath (balneum tepidum) from 62 to 96 deg.

The vapour bath (balneum vaporis) from 100 to 130 deg.

A LIST OF ARTICLES

FOR FITTING UP A BOX LABORATORY ; SPECIFYING
THE NECESSARY PHILOSOPHICAL APPARATUS, TESTS,
OR REAGENTS, &c.

APPARATUS, &c.

Stop Cocks and Bladder (for Gases)	Retort and Receiver
Glass Tubes	Charcoal (for Fire)
Spatulas	Spirit Lamp
Scales and Weights	Filtering Paper
Blow Pipe	Platina Foil and Wire
Crucibles	Turmeric and Litmus Paper.

TESTS, OR REAGENTS.

Tincture of Galls	Muriatic Acid
Prussiate of Potash	Nitrate of Lead
Chromate of Potash	Solution of Nitrate of
Solution of Nitrate of	Copper
Barytes	Solution of Acetate of Lead
Nitrate of Strontian	Solution of Sulphate of
Sulphuric Acid	Alum

TESTS, OR REAGENTS—CONTINUED.

Solution of Muriate of Ammonia	Liquor of Potash P. L.
Solution of Muriate of Soda	Liquor of Subcarbonate ditto
Lunar Caustic	Nitric Acid
Liquor of Ammonia	Solution of Sulphate of Copper
Oxalate of Ammonia	Carbonate of Soda
Nitrate of Barytes	Tartaric Acid

SUNDRIES.

Sulphur, Alum, Borax, Boracic Acid, Zinc, Tin, Copper, Silver, Lead, Mercury, Nitre, Soda, Cream of Tartar, and Sulphate of Iron.

FORMS AND CONTRACTIONS USED IN PRESCRIBING.

Abd. Abdomen. *The belly*

A, ana, aa. *Of each*

Abs. dolor. Absente dolor. *When the pain is
absent*

Ad. du. Vices. *For twice, or at twice taking*

Admoveatur. *Apply.* Admoveantur. *Let them be
applied*

Ad lib. Ad libitum. *At pleasure*

Adst. feb. Adstante febre. *When the fever prevails*

Alt. hor. Alternis horis. *Every other hour*

Alt. q. h. Alternâ quâque hora. *Every other hour*

Alt. q. n. Alternâ quâque nocte. *Every other night*

Alvo Adstrictâ. *When the bowels are confined*

Aq. bull. Aqua bulliens. *Boiling water*

Aqua fervens. *Boiling water*

Aq. font. Aqua fontana. *Spring water*

Aq. tep. Aqua tepida. *Tepid water*

Aggr. feb. Aggrediente febre. *While the fever is
coming on*

Abs. feb. Absente febre. *In the absence of fever*

Applicetur. *Let it be applied*

Ad to : *meaning to complete a given quantity*

Brodium. Broth. Brodium salis. *Decoction of salt*

Bis. Twice. Bis in dies. *Twice a day*

Bulliat. *Boil*

Bbds. Barbadosensis. *Barbadoes*

Bibat. *Drink*

Capiat. Take. Capiendæ. *To be taken*

C. m. cras mane. *To-morrow morning*

Crastinus. *For to-morrow*

Coch. magn. Cochleare magnum. *A table spoon*

Cochl. parv. Cochleare parvum. *A tea spoon*

Coch. ampl. Cochleare amplum. *A table spoon*

Coch. mod : Medioc : *A dessert spoon*

Ceruleus. *Blue*

Cyatho. *A cup.* Cyatho vin. *A wine glass*

Cola. *Strain.* Colatus. *Strained*

Colatur. *Let it be strained*

Colaturæ. *Of, or to the strained liquor*

Colentur. *Let them be strained*

Cyatho theæ. *In a cup of tea*

Cujus. *Of which*

Cujuslibet. *Of any*

Cucurbitula cum ferro. *Cupping*

Cucurbitula cruenta. *Cupping*

Cucurbitula sine ferro. *Dry cupping*

Cæna. *Supper*

H. C. Horâ Sænæ. *Supper-time*

Comp. Compositus. *Compounded*

Cont. remedia. Contin. præscrip. *Let the medicines
or the prescription be continued*

Coque. *Boil.* Coquantur. *Let them be boiled.*

Contundæ. *Bruise.* Concisa. *Cut*

Decocto avenæ. *Gruel*

Decocto hordei. *Barley water*

Dec. ad dim. Decoque at dimidiam. *Boil to
half*

Deaur. pilulæ. Deaurentur pilulæ. *Let the pills
be gilded*

Directione propria. *With a proper direction*

Dimid. Dimidius. *One half*

Dejec. alv. Dejectiones alvi. *Stools*

Doncc alv. respon. Donec alvus respondet.
Until the bowels are opened

Donec alvus bis dejiciat. *Until two stools have been
produced*

Donec alv. soluta fuerit. *Until the bowels shall have
been acted upon*

Dicbus tertiis. *Every third day*

Dc die in diem. *Successive days*

Detur. *Let it be given*

Extende super alutam. *Spread upon leather*

- Ejusdem. *The same*
 Embrocatio. *An embrocation*
 Essentia binæ. *Burnt sugar*
 E. quovis vehiculo crasso. *In any thing thick*
 Ex theriacâ. *In treacle.* Ex melle. *In honey*
 Fluidus fl. *By measure*
 Fac pilulas. *Make pills*
 Fist. arm. Fistula armata. *A clyster pipe and bladder complete*
 Feb. dur. Febres durante. *During the fever*
 Granum. *A grain.* Grana. *Grains*
 Gt. Gtt. Gtta. Gutta. *A drop.* Guttæ. *Drops*
 G. G. G. Gummi gambogiæ guttæ. *Gamboge*
 Gelatinum. *Jelly*
 Hâc. *This.* Hâc nocte. *To night*
 Horâ prand. Horâ prandii. *Dinner time*
 Hor. p. prand. Horâ post prandium. *An hour after dinner*
 Hor. a. prand. Horâ ante prand. *An hour before dinner*
 Hor. decub. Horâ decubitus. *Bed time*
 Horâ somni. *Bed time*
 Horis int. Horis intermediis. *At intermediate hours*
 Horæ unius spatio. *After the lapse of an hour*
 Inter scapulas. *Between the shoulders*
 Injiciatur enema. *Administer a clyster*

- In pulverem. *In powder*
 In pulmento. *In gruel*
 In dies. *Daily*
 Lateri sinistro. *To the left side*
 Lateri dolente. *To the side in pain*
 Lb. Libra. *A pound in weight*
 More dictu. *As directed*
 Modo præscripto. *As prescribed*
 More solito. *As usual*
 Mitte tales No. X. *Send ten*
 Mitte. *Send.* Mittatur. *Let there be sent*
 M. Miscæ. *Mix*
 Minim. Minimum. *A drop*
 N. M. Nux moschata. *A nutmeg*
 Omni nocte. Omni quâque nocte. *Every night*
 O. O. O. Oleum olivæ optimum. *Best olive oil*
 Octarius. *A pint*
 Omni mane. *Every morning*
 Omni primo mane. *Early every morning*
 Omni nocte. *Every night*
 Omni horâ. *Every hour*
 Omni bihorio. *Every two hours*
 Omni biduo. *Every two days*
 Omni quadrante horæ. *Every quarter of an hour*
 Ol. lini s. i. Oleum lini sine igne. *Cold drawn
linseed oil*
 Olim. *Formerly*

- P. R. N. Pro re natâ. *Occasionally*
 Post singulas sedes liquidas. *After every loose stool*
 Partitis vicibus. *In divided doses*
 Post operatione emetici. *After the operation of the emetic is finished*
 Pond. Pondere. *By weight*
 Post horas duas. *In two hours' time*
 Post pilulis. *After the pills*
 Primo mane. *Early*
 Q. P. Quantum placet. *As much as you please*
 Q. S. Quantum sufficiat. *A sufficient quantity*
 Quorum. *Of which*
 Quovis. *Any*
 Rep. Repetatur. *Repeat*
 Red. in pulv. Redactus in pulverem. *Reduced to powder*
 Reg. umbil. Regio umbilici. *The region of the navel*
 Sect. Ging. Sectio gingivorum. *Lancing the gums*
 S. V. R. Spiritus vinosus rectificatus. *Rectified spirit of wine*
 S. A. Secundum artem. *According to art*
 Semi-drachma. *Half a drachm*
 Semi-horâ. *Half an hour*
 S. V. T. Spiritus vinosus tenuis. *Spirit of wine at proof*

- Si opus sit. *If necessary*
 Si non valeat. *If it does not succeed*
 Si vires permittant. *If it can be borne*
 Sesuncia. *An ounce and a half*
 Stet. *Let it stand.* Stent. *Let them stand*
 Ss. Semi. *Half*
 Sub finem coctionis. *When the boiling is nearly finished*
 Sumat. *Take.* Sumatur, Sumantur. *Let them be taken*
 Signetur. *Label it*
 Tempori Sinistro. *To the left temple*
 Temp. dext. Tempori dextro. *To the right temple*
 Vitel. ovi un. Vitello ovi unius. *The yolk of an egg*
 V. S. Venæ sectio. *Bleeding*
 V. S. ad ℥viij. *Bleed to eight ounces*
 Urgenti tussi. *When the cough is troublesome*
 Urg. Dysp. Urgenti Dyspnœâ. *Difficulty of breathing*
 Ult. præsc. Ultimo præscriptus. *The last ordered*
 Vomit. urg. Vomitione urgente. *When the vomiting comes on*
 ZZ. Zingiber. *Ginger*

℥. stands for an ounce

ʒ. stands for a drachm

ʒss. stands for half a drachm

℥. stands for a scruple

gr. stands for a grain

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THE END.

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OBSERVATIONS
ON
BATEMAN'S PREPARATION
OF
RIO NEGRO SARSAPARILLA,
BY DR. HANCOCK.

THE Medicinal Properties of Sarsaparilla are not confined to the bark so called, but are found to reside almost equally in all parts of the root, as the cuticle, woody and farinaceous portions. This has been fully proved in Demerara, by the results of their separate administration in actual disease. It becomes nearly inert by long continued coction, and the peculiar odour of good Sarsa is almost extinguished thereby. Knowing, then, the destructive effects of long boiling on this drug, we cannot wonder at the doubtful and discordant reports given of it by our Medical and Pharmaceutical writers, after they have directed it to be boiled down to one half, &c., which must truly render it very nearly useless and inert. Another preparation, still more preposterous, appears to be exceedingly in vogue at the present time; that is, the decoction of Sarsa boiled down into an extract. By this absurd practice, its virtues are still more completely destroyed. It is much to be lamented, that such vast quantities of this valuable root are thus thrown away in vapour, a BOILED, if not a BURNT offering, to the GODDESS OF FOLLY. On entering some of the shops in London, where this process is carried on upon a large scale, we find the rooms teeming with the effluvium, which may be regarded as the active principle, or, at least, as an element necessarily connected with it, since it is found that, in proportion as we drive off this odorous principle by heat, we despoil the remedy of its active properties. In fact, as now universally prepared—in conformity with the directions of the Colleges (whether British, European, or American) this extract must be quite inert; and it would seem as though some presentiment of the same had existed in the minds of the MAGI, for by way of compensation as it were, they direct that, the POWDERED root be given in the decoction! But, to this inert extract of Sarsaparilla, and the no less useless syrup prepared from the extract, certain sages of our profession have assigned their

best offices, when, in prescribing the decoction, they say—“THICKEN it with extract, and SWEETEN it with syrap.” We have seen these boasted extracts and syrups used in great quantity, and at great cost, but in vain; when, afterwards, a quart of the strong fermented preparation has removed all the violence of the symptoms.

One of the most remarkable effects of genuine Sarsa, and which tends clearly to exemplify its eminently salutary properties, is the augmentation of flesh and melioration of the habit, so frequently observable in patients who have taken it for some time. It was noticed by many of the planters of Demerara, as well as by skilful practitioners, that not only did sores heal up and swellings of the joints subside on the use of Sarsa, but the patients acquired a plumpness, smoothness of skin, and an unusual degree of activity.

Whatever be its mode of action, its advantages will doubtless be found very great in the treatment of Phthisis, Secondary Symptoms, Impaired Digestion, Insidious Diseases, Impurities of the Blood, Mercurial Sequelæ, Scrofula, Scurvy, Rheumatism, Gout, General Weakness and Decay of Nature, and especially in correcting a constitutional diathesis tending to such disorders.

In a subsequent Paper on this subject the Author has added the following remarks:—

It is a fact yet unheeded or unknown in Europe, that this species of Sarsa, the Rio Negro, does manifest a peculiar power in healing ulcers in all parts of the body, and removing a multitude of chronic affections. It is scarcely less remarkable for its power in improving the condition and increasing the bulk of the body, and therefore, it is not without reason esteemed as a great restorative; but the narrow views of the faculty have tended to restrict its use to syphilitic affections, and appear to have no comprehension of its general utility in altering the condition of the blood, and amending the habit of body, as it does most manifestly in scorbutic, serofulous, consumptive, and dropsical habits, and all cachexies—foul or perverted states of the humours. We shall see in fact that the experimental essays with Sarsaparilla, as those of Mr. Pearson (a diligent inquirer) and others, have been almost exclusively directed to this object—i. e. to its use as an ANTI-SYPHILITIC remedy; and having (amongst the spurious kinds brought to market) no criterion of judging of its real or relative value—unless by its simple mucilage, which has little to do with its medical properties—and after destroying, by heat, whatever power it might have possessed, they conclude that Sarsaparilla is “unworthy of confidence as a SPECIFIC IN LUES VENEREA!”—whilst they appear scarcely to have entertained a single idea of its utility as a general ALTERNATIVE. Nay, some have derided this term as being inexplicable; because, in servile obedience to fashionable and absurd dogmas, having rejected the only pathological doctrines entitled to any regard—the humoral pathology, so called—they could not, in their wisdom, conceive in what

maner an alterative is to act ; and it was deemed UNSCIENTIFIC to admit any position which contradicted their hypothesis and the senseless jargon of SPASM, AFFECTIONS OF THE TISSUES AND SOLIDUM VIVUM—fancies, indeed, not a whit less absurd than Boerhaave's LENTOR and ERROR LOCI ; whilst of all errors, the greatest was, and still is, that of mistaking the nature of INFLAMMATION, the primary form, nay, the essence or basis of all disease—and regarding it, as they do, to consist in augmented vigour or INCREASED ACTION, thus assuming, in explanation, just the reverse of the truth,—strength or tonicity for relaxation, activity for the passive state. With such false foundation, no wonder the superstructure is so bad ; for it is a fact which ignorance alone will deny, that, whilst the arts and sciences in general have made great advances, the science of medicine has retrograded, and become nearly useless and effete—and, as remarked by a physician of distinguished merit (Dr. Paris) the modern rage for simplicity of prescription, and the rejection of valuable remedies, have curtailed our Mat. Med. and defeated many of its most useful and important purposes. Similar sentiments have been expressed by several enlightened professors of this metropolis, especially by Messrs. G. Burnett, Drs. Sigmond, Philip, Bureaud, Tierney, Clark, Smith, Tuthill, and others.

NOTE.—*Rio Negro Sarsaparilla*, prepared only by Bateman, will be stamped on the cork of each bottle. In addition to which will be printed the address of the preparer,

WILLIAM BATEMAN,

Chemist in Ordinary to the late King, and H. R. H. the Duchess de Berri, &c.—BROMPTON, LONDON.

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NOTE.—The evolving of Carbonic Acid renders the Opium more energetic and decisive, whilst the generation of a small portion of Alcohol and Acetic Acid contributes to keep alive its sedative power.

TO THE MEDICAL PROFESSION.

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The organization of vegetables is such, that any addition of Acetous Menstrua decomposes the active principle of the Vegetable employed, and thus the objection to the Liq. Opii Sedativus which from time to time deposits by decomposition its sedative property, requiring an addition to excess of Alcohol to re-suspend it.

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* One grain of Narcotine will paralyse the brain.

